



BENTONVILLE PUBLIC SCHOOLS

**DRAFT**  
**Demographic Analysis**

May 6, 2013

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## Glossary of Terms

### **Adjusted Capacity**

See *Capacity*.

### **Arkansas Department of Education (ADE)**

The Arkansas Department of Education (ADE) is a dedicated service agency that provides leadership, resources and technical support to school districts, schools, and educators. As the administrative arm of the State Board of Education, ADE is responsible for implementing state and federal education laws, disbursing state and federal funds, holding schools and districts accountable for performance, licensing all educators and providing public transparency. ADE serves students, parents, and the general public by protecting the public trust through adherence to laws, strong stewardship of public funds and accountability for student performance.

### **Attendance Boundary**

An attendance boundary is defined by a physical boundary which is specific to an elementary, middle, junior high, or high school. Students with a physical address which is located within that boundary are student residents of that “attendance boundary”.

### **Board of Education (BOE)**

The BOE is the governing board of the Bentonville Public School District.

### **BPSD**

Bentonville Public School District.

### **Capacity**

“Academic facility – a building or space, including related areas such as the physical plant and grounds, where public school students receive instruction, that is an integral part of an adequate education as described in Ark. Code Ann. 6-20-2302”. Also, the number of students who can be housed in any particular building without compromising the instructional program. There are three capacities the BPSD utilizes when planning for programs and facilities:

#### ***Adjusted Capacity***

This capacity analysis assumes the room set asides are necessary to provide an adequate instructional program, the adjusted capacity would determine the number of students that could be assigned to the building without compromising the instructional program.

#### ***Ideal Capacity***

This number takes the adjusted capacity and uses a percentage for a given level that has historically been shown to be a good measure in allowing for differences in scheduling, student movement, teacher assignment, and all creative programming to meet the needs of all students. In this report, 85% at elementary and middle levels and 90% at junior and senior high school levels is used.

#### ***Total Capacity***

Using every teaching station during every period of a traditional day and following state guidelines for student enrollment in a grade level. This does not take into consideration needed space for special education, special program, schedules of buildings, therapy, testing, counseling, etc. These functions would have to be conducted in small areas throughout the building, hallways, lobbies, or portables.

**Cohort**

A cohort is a group of subjects who have a shared experience during a particular time span (in this case, students). Cohorts may be tracked over a period of time. For example, a cohort begins when a group of kindergarteners enroll in grade K and move forward each year through the grade levels.

**Environmental Systems Research Institute (ESRI)**

ESRI is a software development and services company providing Geographic Information System (GIS) software and geodatabase management applications.

**Geocoding**

Geocoding is the process of finding associated geographic coordinates from other geographic data, such as street addresses, or zip codes. With geographic coordinates the features can be mapped and entered into Geographic Information Systems.

**Geographic Information System (GIS)**

A geographic information system is any system that integrates, stores, edits, analyzes, shares, and displays geographic information. GIS is the merging of cartography, statistical analysis, and database technology.

**Ideal Capacity**

See *Capacity*.

**Intra-district Transfers**

Students who have a physical address in one elementary attendance area of the BPSD but attend school in a different elementary school attendance area are considered “intra-district transfers”.

**Inter-district Transfers**

Inter-district transfers are students who have a physical address in another school district boundary but are attending a school within the BPSD.

**Millage**

The property tax (or millage tax) is a levy on property, expressed in mills per dollar of value of the property that the owner is required to pay. The tax is levied by the governing authority of the jurisdiction in which the property is located.

**PSD**

Public School District.

**Total Capacity**

See *Capacity*.



## EXECUTIVE SUMMARY

The purpose of the 2012-13 Demographic Analysis is to provide detailed demographic information about the Bentonville Public School District's community, and the effects of those demographics on the Bentonville Public School District's enrollments and the impact on long range planning for facilities in order to assure that appropriate and equitable facilities are provided for the students of the District. It is imperative that the District remain proactive in planning as the construction and modernization of school facilities cannot be accomplished in a short time period.

School districts are inextricably linked to the communities they serve. Therefore, any analysis of a school district must include an analysis of the communities served by the District, including the growth or decline in population, jobs, and residential development. The impact of the local planning agency policies, the health of the economy, and the migration of the population within the community have long term effects on District enrollments.

The 2012-13 Demographic Analysis for the Bentonville Public School District (BPSD) provides not only a historical perspective on the BPSD, including historical demographic information on the communities served by the district as well as the district's residents, enrollments and individual school facilities, but also provides an analysis of current and projected residents and enrollments. As these factors change and timelines are adjusted, the study will be revised to reflect the most current information.

The consultant conducted research with all relevant planning agencies, and governmental offices in order to identify current economic and development trends. This research was then correlated with BPSD historical enrollment and resident trends. Having gathered and analyzed this information, the consultant prepared projections of student enrollments and projections of student residents by area in order to assist the District in annual budgeting, reviewing district attendance boundaries, and planning for the location and size of future facilities.

The District experienced rapid growth from 2000 to 2007 as a direct result of significant economic growth combined with rapid residential development. With the occurrence of the economic downturn, from 2007 to 2009, enrollment growth slowed, births stabilized and residential development significantly declined. More recently, as the economy begins to recover, enrollments have increased, local births are on the rise, and more residential building permits are being issued. Ultimately, these influencing factors will bring more families with children to BPSD.

Student enrollments are projected to increase to 20,467 K-12<sup>th</sup> grade students by the 2022-23 school year. Facility capacity will need to be expanded to accommodate this growth to ensure the District will have equitable facilities to house all BPSD students through the projection period.

This data will require constant review as new enrollment information becomes available in the coming months and years; the District must be diligent in monitoring this data to assure the provision of adequate school facilities.

### **Recommendations**

The Bentonville Public School District has undertaken this Demographic Analysis in order to assist in proactive planning for current and future facility needs for its student population. The cost of new and modernized school facilities will prompt the District to pursue millage elections in order to adequately provide facilities for its students and projected students.

- Current 9th-12th grade enrollments fall above the ideal capacity. By the 2014-15 school year, they will exceed the adjusted capacity by 2,014 seats. By 2016-17, 9th-12th grade enrollments will exceed total facility capacity. It is imperative the District explore options for housing 9th-12th grade students through the projection period, as the construction and modernization of school facilities cannot be accomplished in a short time period.
- Not only does the District need an immediate high school solution for housing students, but during the 10-year projection period the District will need to construct at least one elementary school (+805 over adjusted elementary capacity by 2022-23), and acquire a site for a new middle school (+290 over adjusted middle school capacity by 2022-23).
- While junior high school enrollments will reach adjusted capacity by 2022-23, indicating no need for a new junior high school through the projection period, we recommend the District continue to monitor enrollments annually.
- The District should aggressively pursue adequate school funding from Federal, State, and Local sources in order to upgrade current facilities and construct new facilities as needed.
- Replace portable buildings on all campuses with permanent structures when fiscally possible.
- Maintain relationships with all cities served by the District and Benton County in order to continue to plan for the most effective use of its facilities in addition to the potential for new facilities.
- Maintain ongoing relationships with businesses in order to effectively track economic growth.
- Consider exploring joint use projects with community groups and organizations, city governmental agencies, and other resources in order to accommodate and improve these programs which meet the needs of a diverse student population.
- Utilize this study as the foundation for the development of a Long Range Master Plan, incorporating the findings of this study, facility standards, educational specifications, and attendance boundary changes.
- Review and update this study annually to determine if projected development and enrollment trends are accurate. Should future trends deviate from those identified in the study, adjustments regarding future school facility needs and costs may be required.

## SECTION A: INTRODUCTION

The Bentonville Public School District, established in 1872, is located in the northwest corner of Arkansas in Benton County. The District encompasses 142 square miles and serves, in whole or in part, the municipalities of Bella Vista, Bentonville, Cave Springs, Centerton, Highfill, Little Flock, Rogers, and Springdale as well as the unincorporated areas of the County. The Bentonville Public School District has grown dramatically in the last decade, and is now one of the largest districts (by student population) in the state.

The Bentonville Public School District serves grades pre-kindergarten through grade 12 and, as of October 2012, has a total enrollment of 14,878 students. The District includes 8 elementary school sites, 2 non-traditional elementary school sites, 4 middle school sites, 2 junior high school sites, and 1 high school site. A third junior high school is currently under construction and is planned to open in August 2013. Table 1 provides current year enrollments for all District schools, while Figures 1 and 2 provide their geographic location within the District boundary.

**Table 1. School Sites and 2012-13 Enrollments**

<b>Elementary Schools</b>	<b>Grade Levels</b>	<b>2012-13 Enrollment</b>
Apple Glen	K-4	590
Central Park	K-4	725
Cooper	K-4	654
Centerton Gamble	K-4	602
Mary Mae Jones	K-4	648
Sugar Creek	K-4	587
Thomas Jefferson	K-4	545
Willowbrook	K-4	692
<b>Non-Traditional Elementary Schools</b>	<b>Grade Levels</b>	<b>2012-13 Enrollment</b>
Elm Tree	K-4	632
R.E. Baker	K-4	605
<b>Middle Schools</b>	<b>Grade Levels</b>	<b>2012-13 Enrollment</b>
Ardis Ann	5-6	621
Brightfield	5-6	575
Old High	5-6	640
Barker	5-6	578
<b>Junior High Schools</b>	<b>Grade Levels</b>	<b>2012-13 Enrollment</b>
Lincoln	7-8	1,152
Washington	7-8	1,134
<b>High Schools</b>	<b>Grade Levels</b>	<b>2012-13 Enrollment</b>
Bentonville High School	9-12	3,898
<b>Total</b>		<b>14,878</b>

Figure 1. Bentonville Public School District

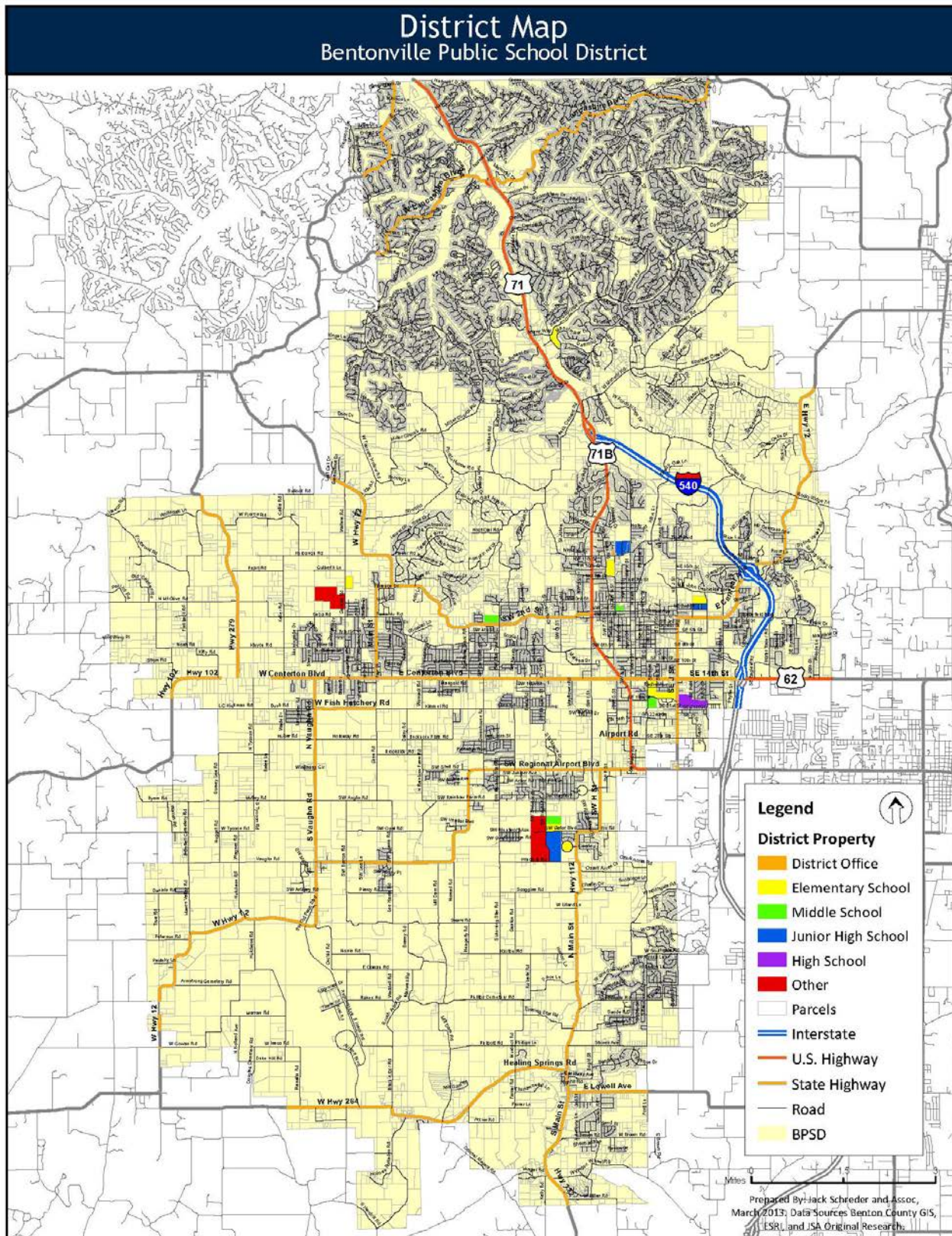
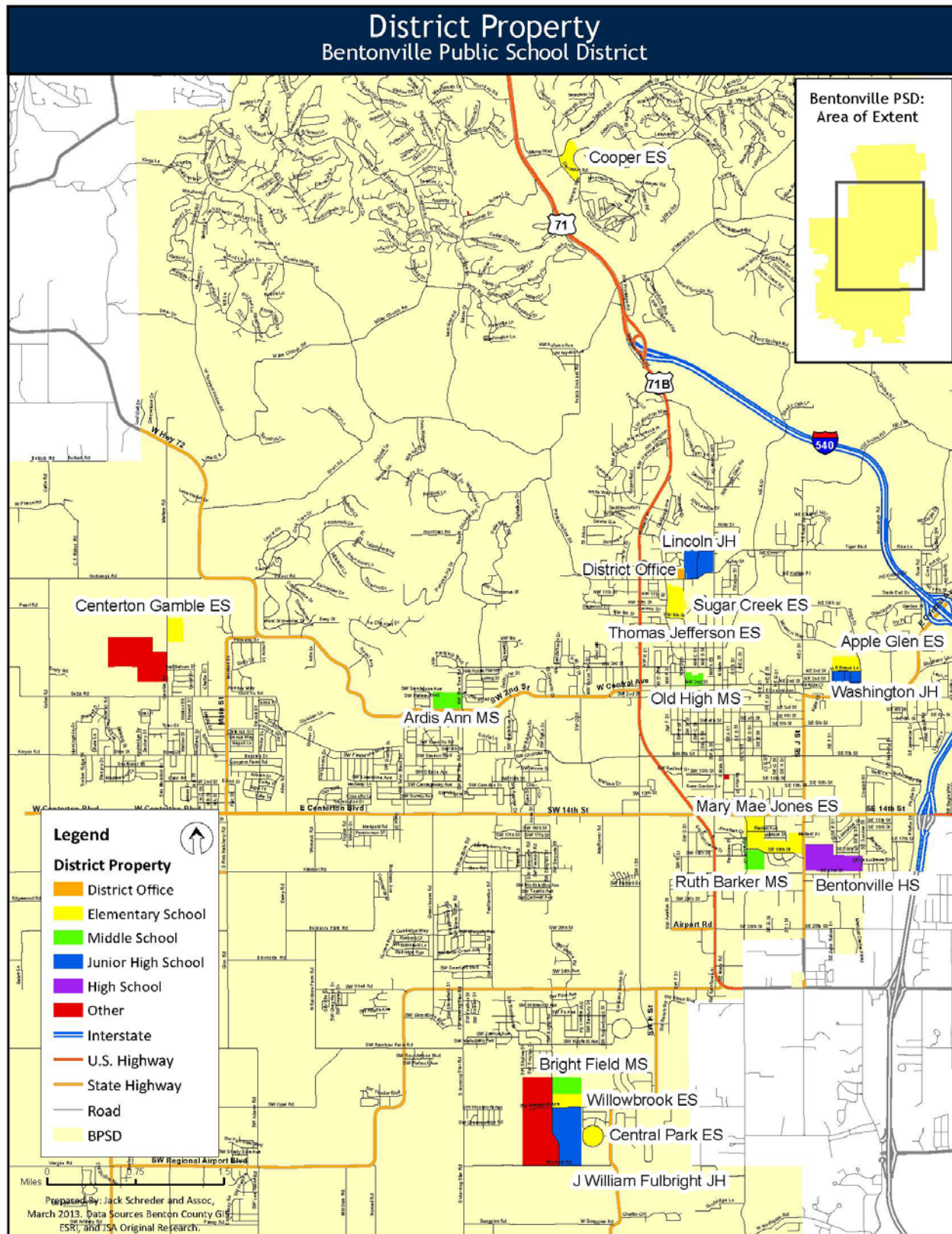




Figure 2. District Property



**Bentonville Public School District 2012-13 Demographic Analysis**

This report is divided into ten major components:

- A. Introduction
- B. District Mission and Goals
- C. District and Community Demographics
- D. Land Use and Planning
- E. Economic Development
- F. Spatial Analysis
- G. Enrollment Projections
- H. Resident Projections
- I. Facility Analysis
- J. Recommendations

Enrollment data presented in this report was compiled from Bentonville Public Schools core data and through historical figures maintained by the Arkansas Department of Education. Data utilized in this report was also sourced from:

- 1990 decennial Census compiled by the U.S. Census Bureau;
- 2000 decennial Census compiled by the U.S. Census Bureau;
- 2010 decennial Census compiled by the U.S. Census Bureau;
- Arkansas Department of Health;
- Benton County Assessor's Office;
- City of Bentonville Planning Department;
- City of Centerton Planning Department;
- City of Bella Vista Planning Department;
- Environmental Systems Research Institute, Inc. (ESRI)
- Esri Business Analyst Online (BAO);
- National Center for Education Statistics;
- City of Bentonville GIS Department;
- Walton College Center for Business and Economic Research.

## SECTION B: DISTRICT MISSION AND GOALS

### Vision Statement

Excellence With Every Step.

### Mission Statement

The Bentonville Public Schools are dedicated to:

- Creating and maintaining exemplary programs for teaching and learning
- Education all students for a successful future in a changing world
- Preparing the youth of our community to become caring, contributing citizens

### Goals: Strategic Plan 2012-2015

- Academic Performance
  - We expect to be an exemplary district. We will deliver a 21<sup>st</sup> century curriculum.
- Organizational Effectiveness
  - We will collaborate with internal stakeholders.
  - We will develop a diverse workforce within our staff.
- District Growth
  - We will develop a strategic, fluid growth plan to accommodate increasing student enrollment.
- District Reputation
  - We will enhance public awareness of district accomplishments and successes.
- Financial Viability
  - We will manage stakeholders' funds with which we are entrusted. We will use conservative restraint and a responsible budgeting process.
- Superintendent
  - The Superintendent will maintain high expectations for student and staff performance. The superintendent will lead an exemplary district while managing growth and the related issues of our district.

## SECTION C: DISTRICT AND COMMUNITY DEMOGRAPHICS

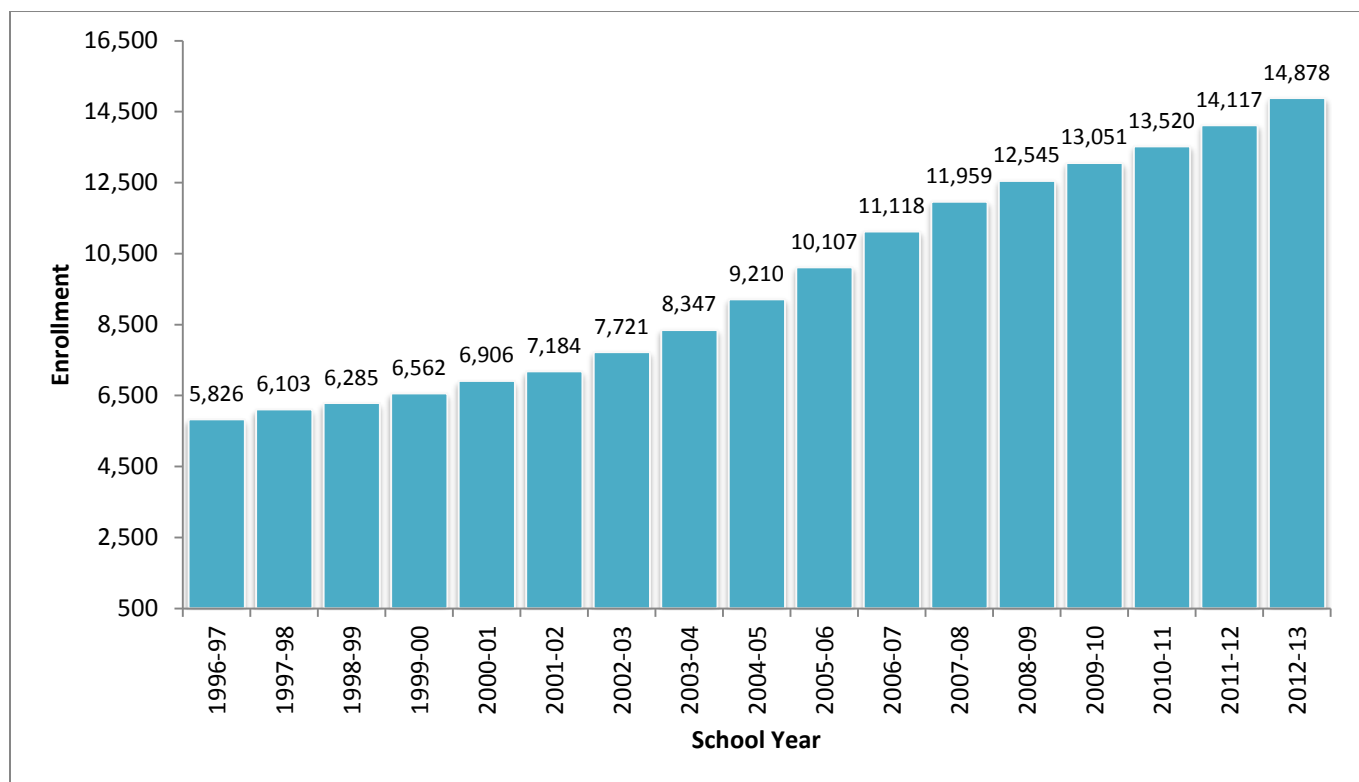
### Enrollment Trends

#### *Historical Enrollments*

The Bentonville Public School District has grown dramatically in the last decade, and is now one of the largest districts (by student population) in the state of Arkansas. Enrollments increased from 5,826 students in October 1996 to 14,878 students in October 2012, representing an overall gain of 155%. The various demographic factors affecting the District's enrollment increase will be discussed in the following sections. Figure 3 illustrates the District's enrollment pattern since 1996-97. Figure 4 provides current year enrollments by school. Figure 5 illustrates annual growth in student enrollment.

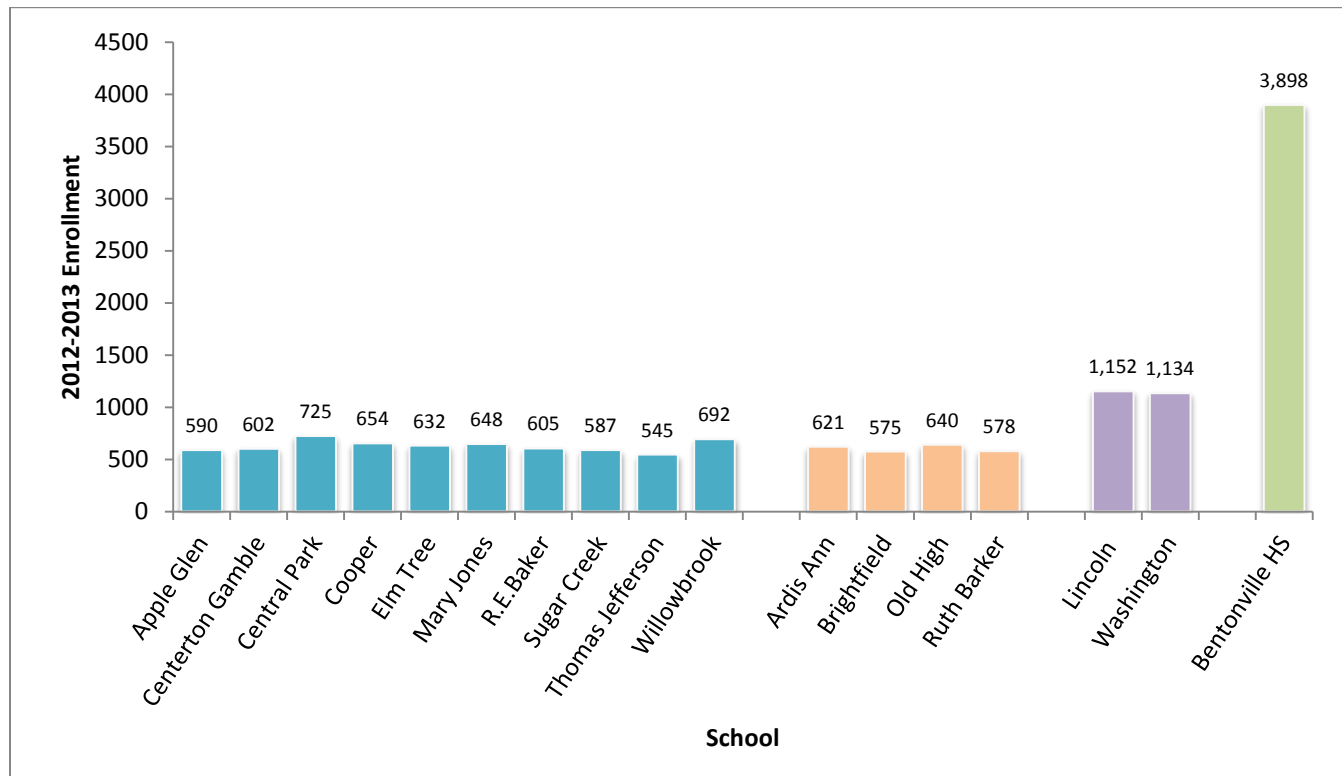
Figure 6 demonstrates that enrollments at all grade levels increased since 1996-97. Kindergarten enrollment increased significantly from 1996 to 2008 and then stabilized through 2011 (Figure 7). However, in 2012-13 kindergarten enrollment increased significantly to 1,315. This will have an impact on future enrollments, as larger or smaller incoming kindergarten cohorts result in larger or smaller overall enrollments as these cohorts matriculate through the system.

**Figure 3. Historical Enrollments**

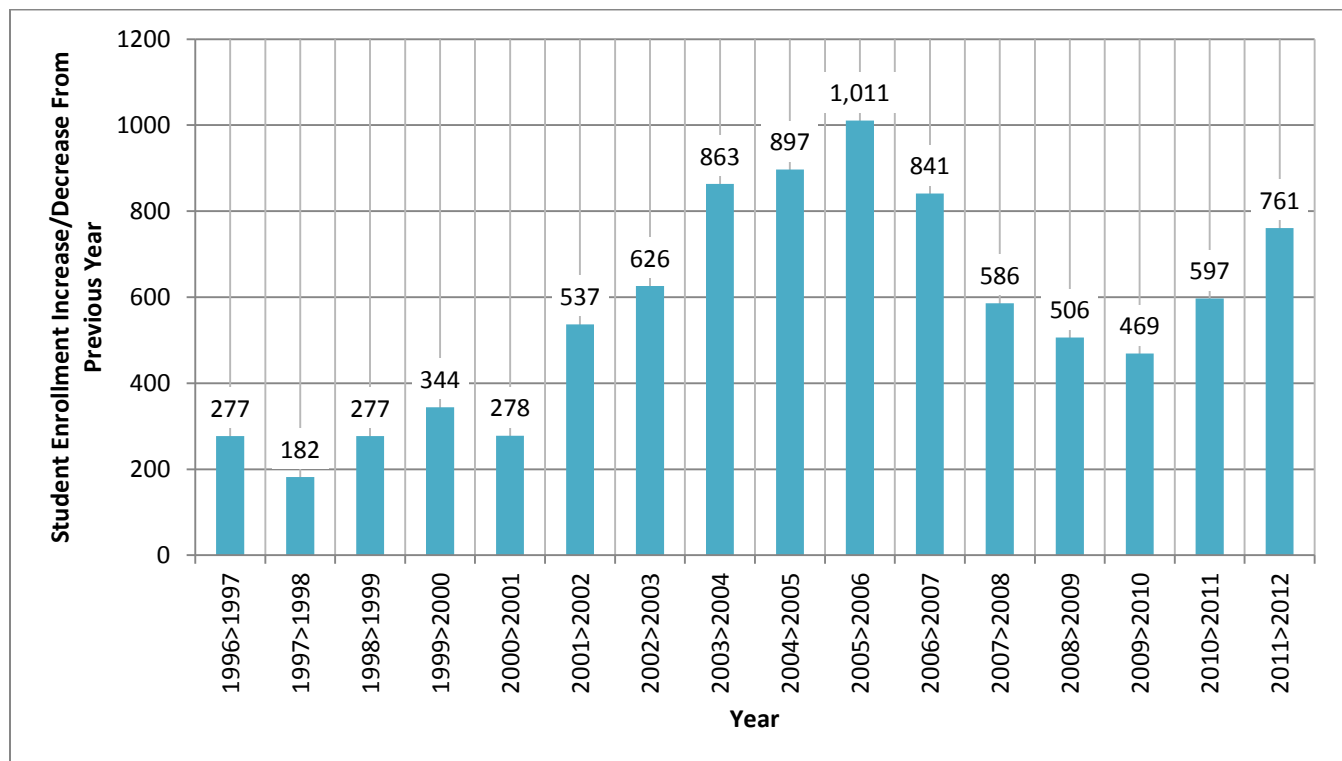


Source: BPSD.

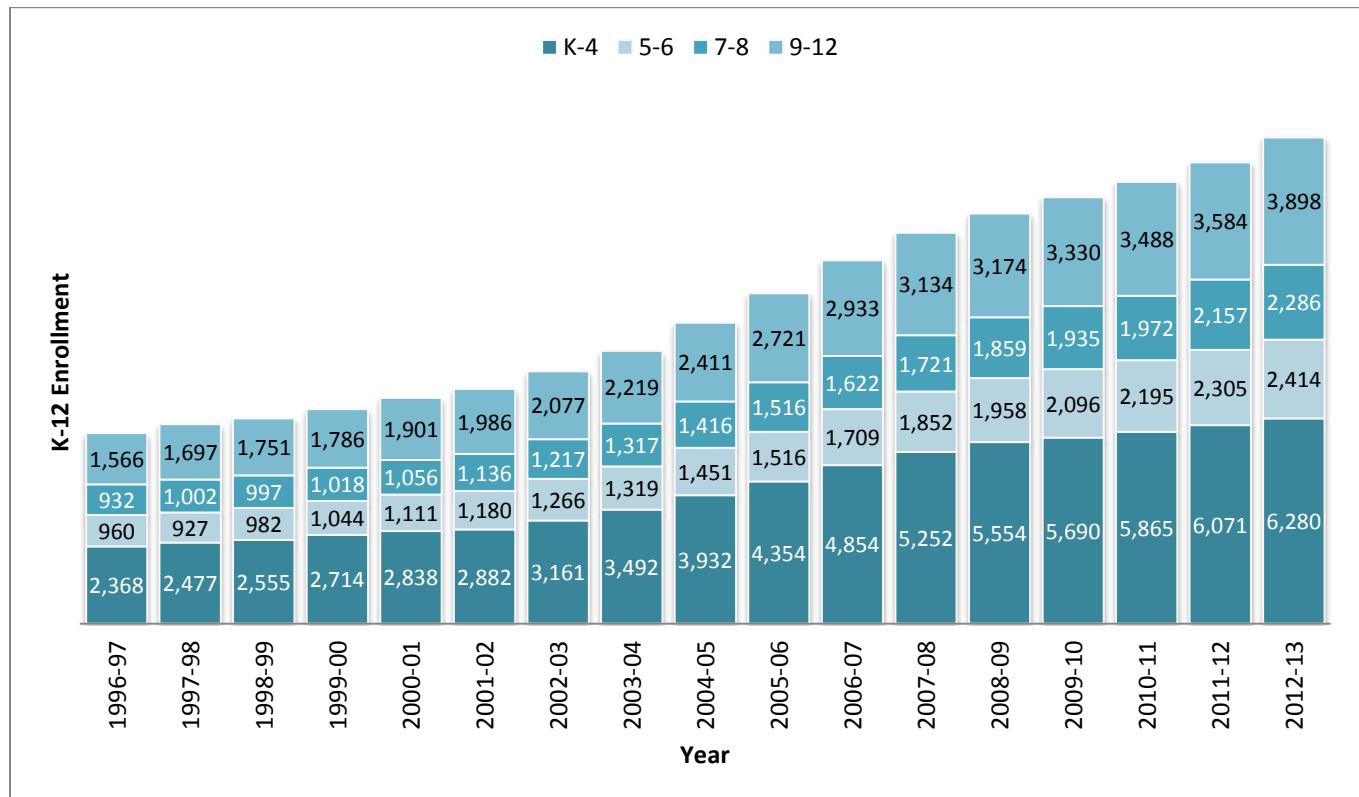


**Figure 4. 2012-13 Enrollments by School**

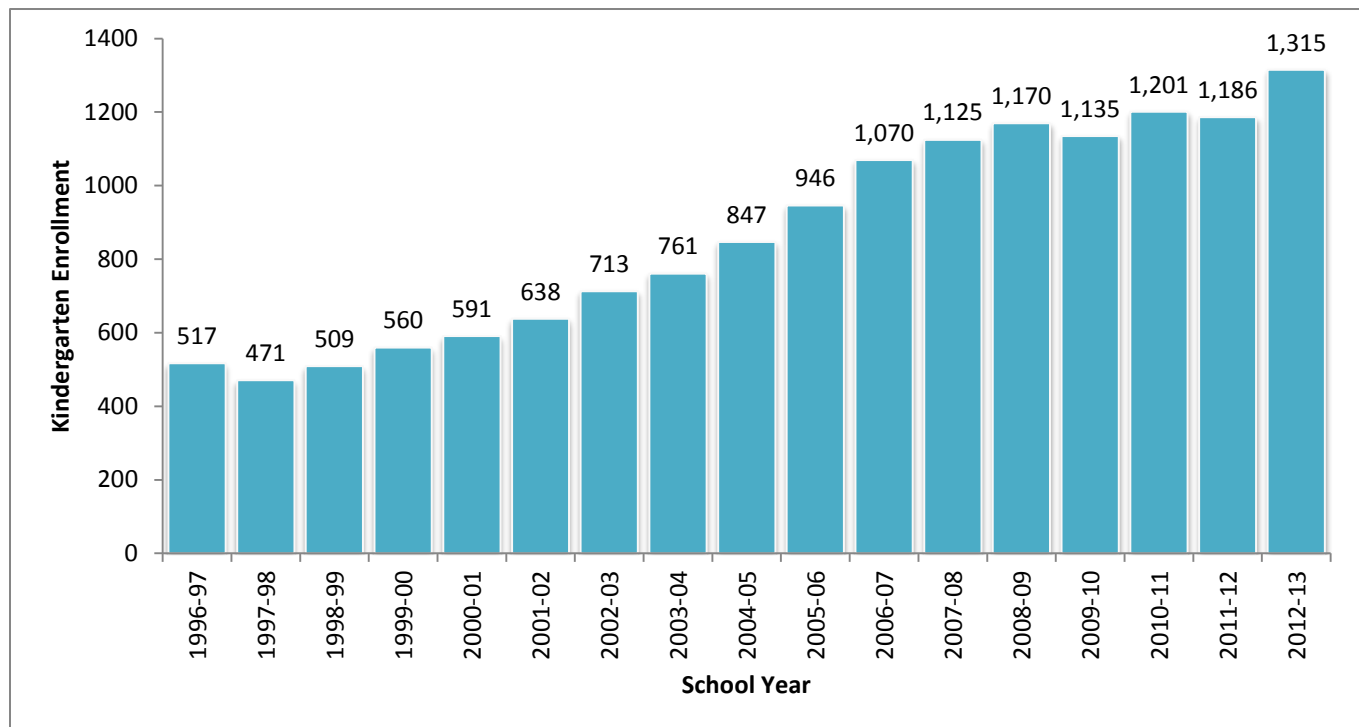
Source: BPSD.

**Figure 5. Annual Growth in Student Enrollment**

Source: BPSD.

**Figure 6. Historical Enrollments by Grade Level**

Source: BPSD.

**Figure 7. Kindergarten Enrollment**

Source: BPSD.

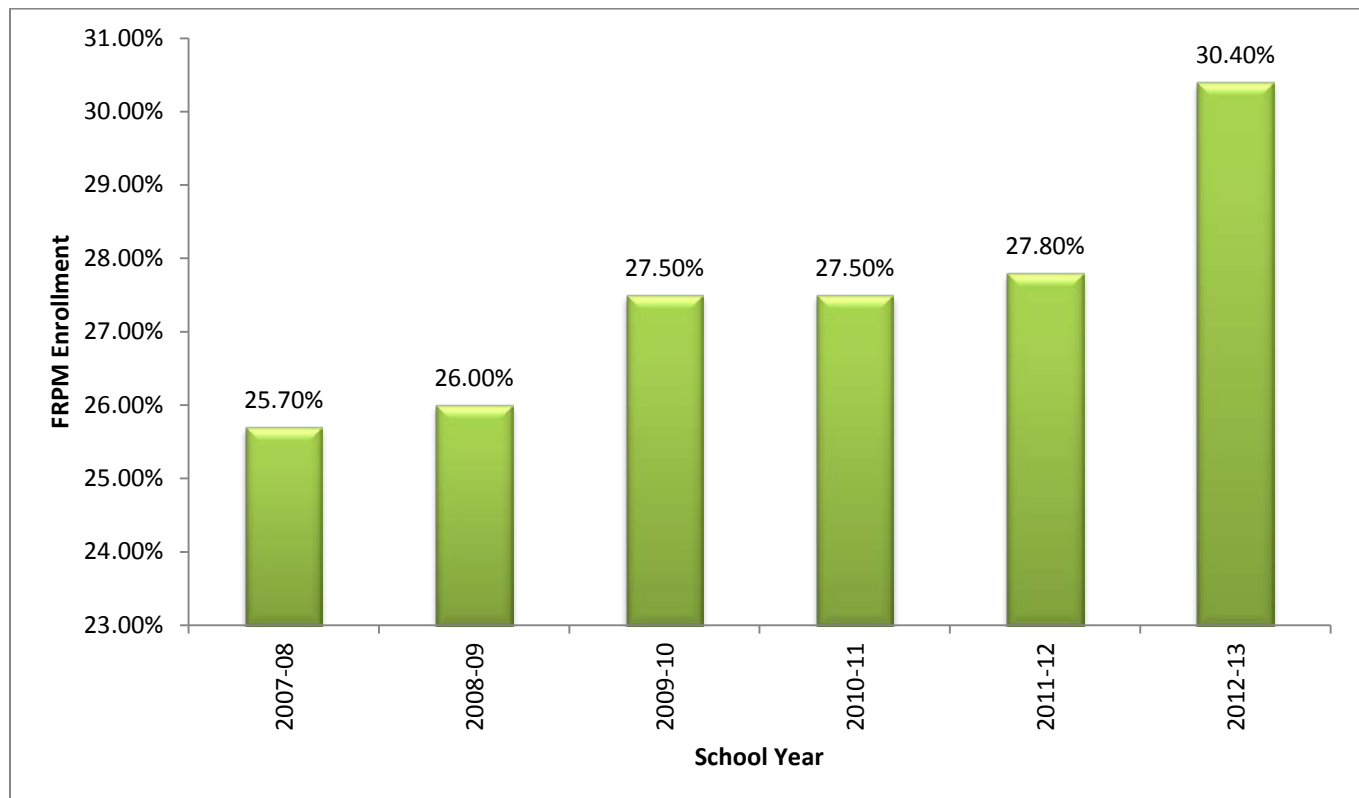
**Historical Enrollment by Socioeconomic Status**

In order to analyze the District's socioeconomic profile, the consultant utilized participation in Free or Reduced Price Meals (FRPM) program as a socioeconomic indicator. Table 2 provides the number of BPSD students participating in the FRPM program from 2007-08 to 2012-13. Since 2007, participation in the program increased by 1,436 students, and participation as a percentage of total enrollments increased from 25.7% to 30.4%. Figure 8 graphically demonstrates the change by year.

**Table 2. Historical Students Enrolled in Free or Reduced Price Meals**

School Year	Students Enrolled in Free or Reduced Price Meals	Percent FRPM
2007-08	3,082	25.7%
2008-09	3,266	26.0%
2009-10	3,592	27.5%
2010-11	3,727	27.5%
2011-12	3,921	27.8%
2012-13	4,518	30.4%

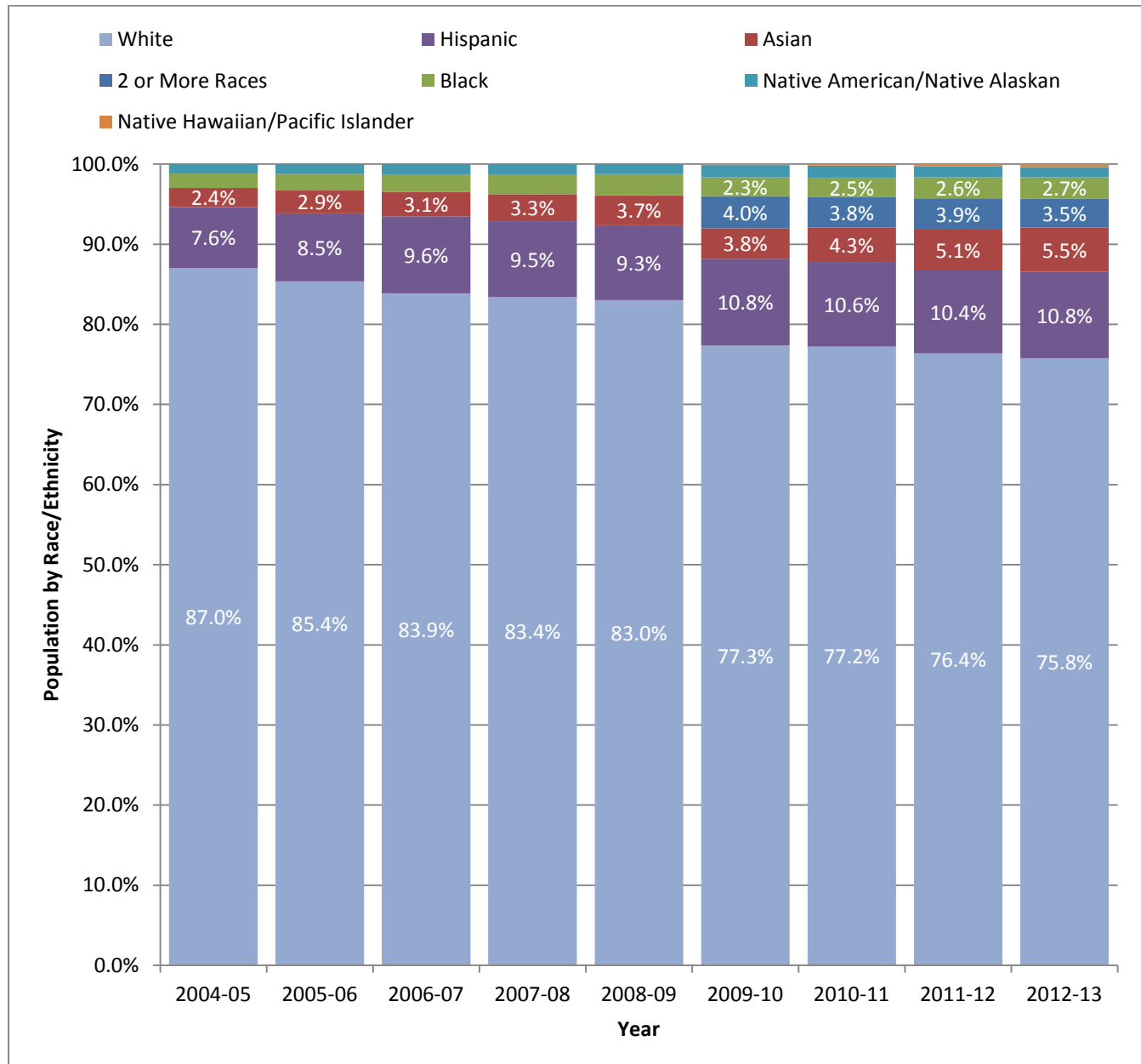
Source: Arkansas Department of Education.

**Figure 8. Historical Students Enrolled in Free or Reduced Price Meals**

Source: Arkansas Department of Education.

**Historical Enrollment by Ethnicity**

Historically, BPSD enrollments have been less diverse; however, that trend is changing. In 2004-05, 87.0% of the BPSD enrollment was White and 7.6% of the population was Hispanic. In the current year, Whites comprise 75.8% of the BPSD population and 10.8% of the population is of Hispanic Origin (Figure 9). The proportion of all other BPSD races is increasing.

**Figure 9. Historical Enrollment by Race/Ethnicity**

Source: Arkansas Department of Education.

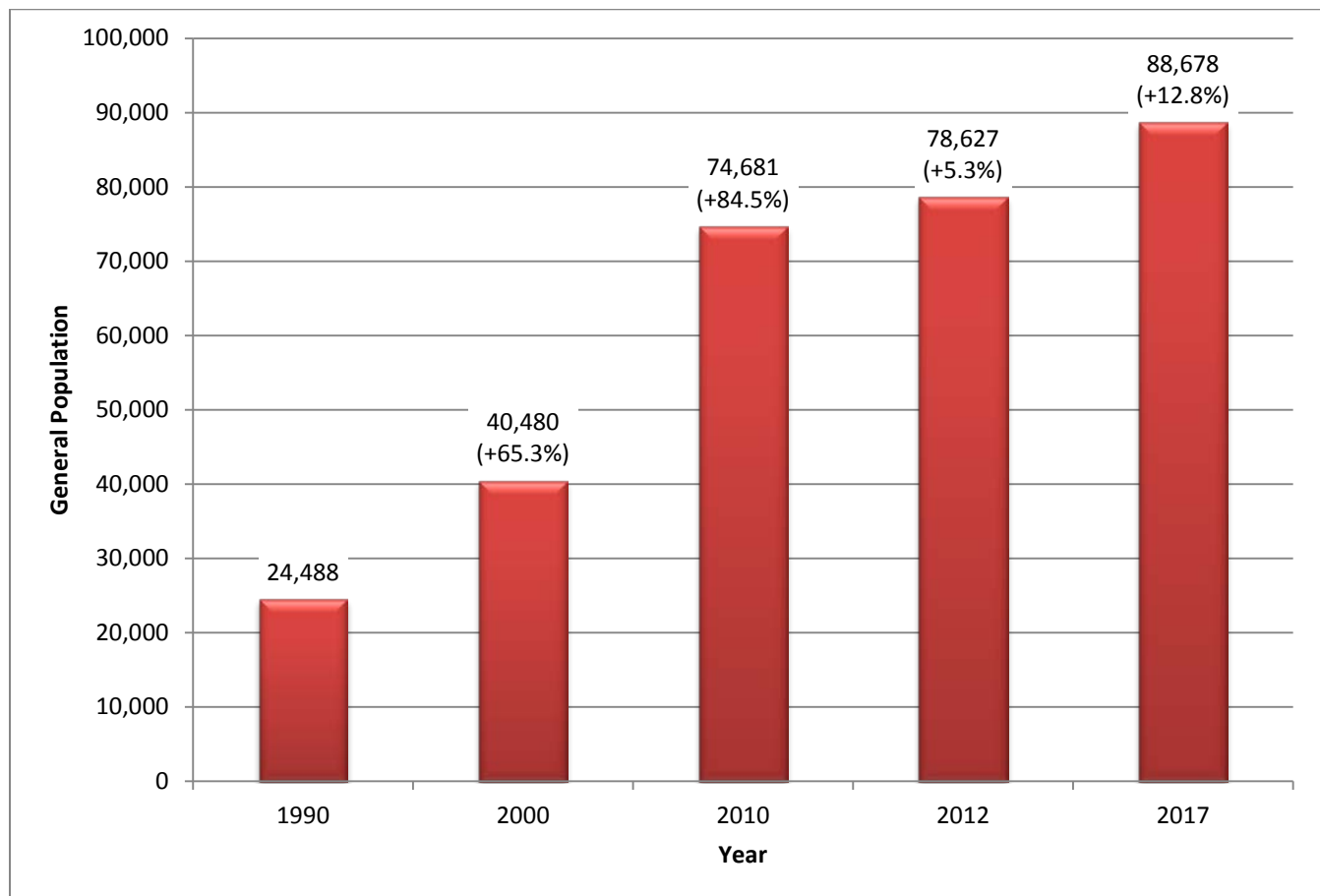
## **BPSD General Population Trends**

### ***Historical and Projected Population***

In order to better understand the particular characteristics of the community served by the BPSD, the consultant built a custom web application using ESRI Business Analyst Online. By doing so, we were able to aggregate and summarize selected demographic information about the general population residing within the BPSD boundary, including demographic projections to 2017. By looking at current and projected trends in the BPSD general population and in the populations of school-aged children, critical decisions can be supported regarding future programming demands and facility needs.

The general population of BPSD increased from 24,488 in 1990 to 40,480 in 2000 (+65.3%). However, the community experienced its most significant growth from 2000 to 2010 (+84.5%). Since 2010, the population increased by 5.3% and is projected to increase another 12.8% through 2017 (Figure 10). Growth of the community will continue, though at a measured rate.

**Figure 10. BPSD Historical and Projected General Population**

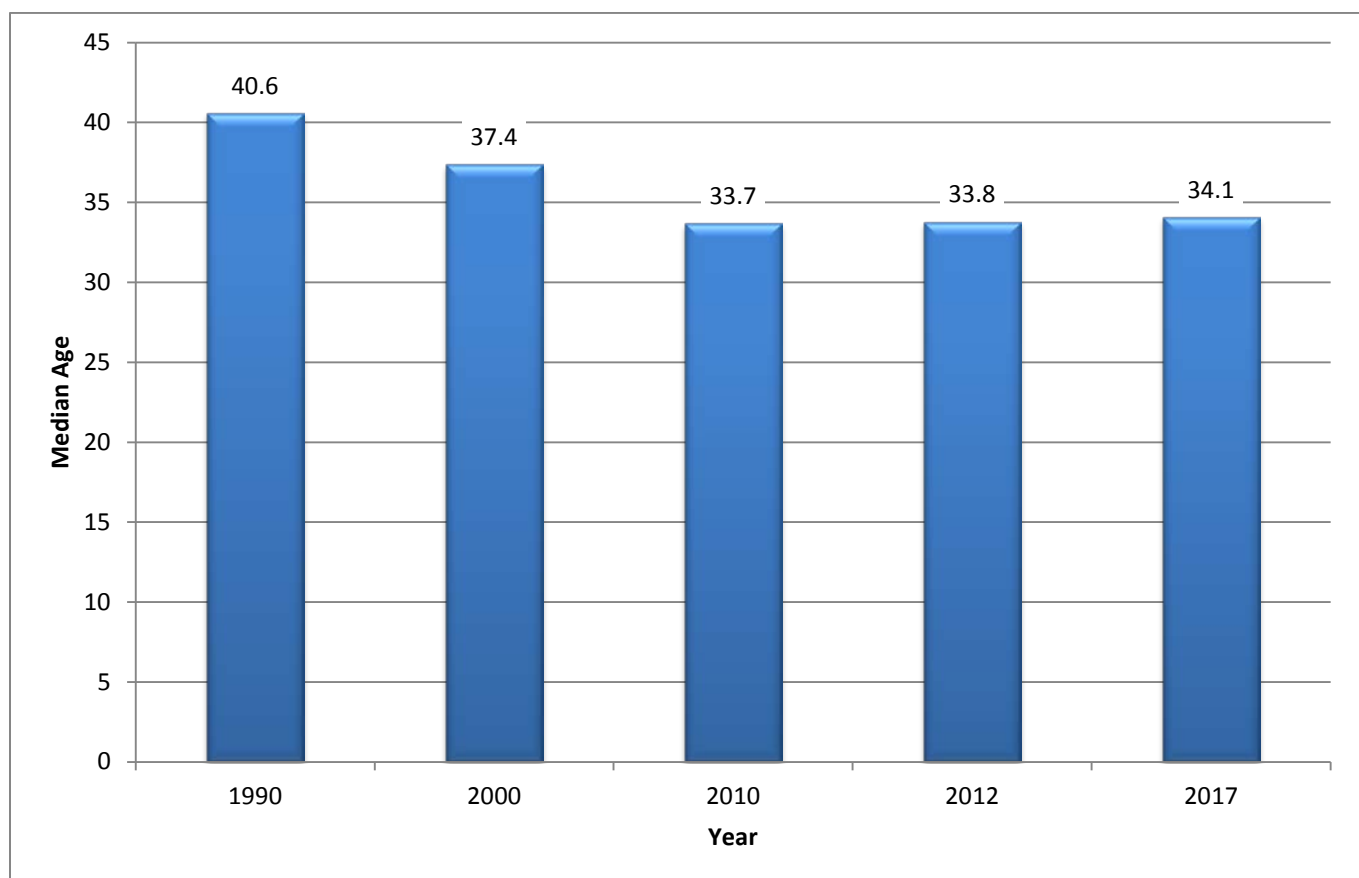


Source: ESRI Business Analyst Online, by Custom Region.

The age distribution of the population has significant effects on schools, social services, the available workforce, and the economy. An aging population normally requires fewer schools. A younger, rapidly growing population generally requires more schools.

The median age of the general population within the District boundary has declined significantly since 1990 when the median age was 40.6 years (Figure 11). By 2010 the median age declined to 33.7 years and is projected to remain stable through 2017. This is evidence of the significant in-migration of younger families with children to the area.

**Figure 11. Median Age of General Population**



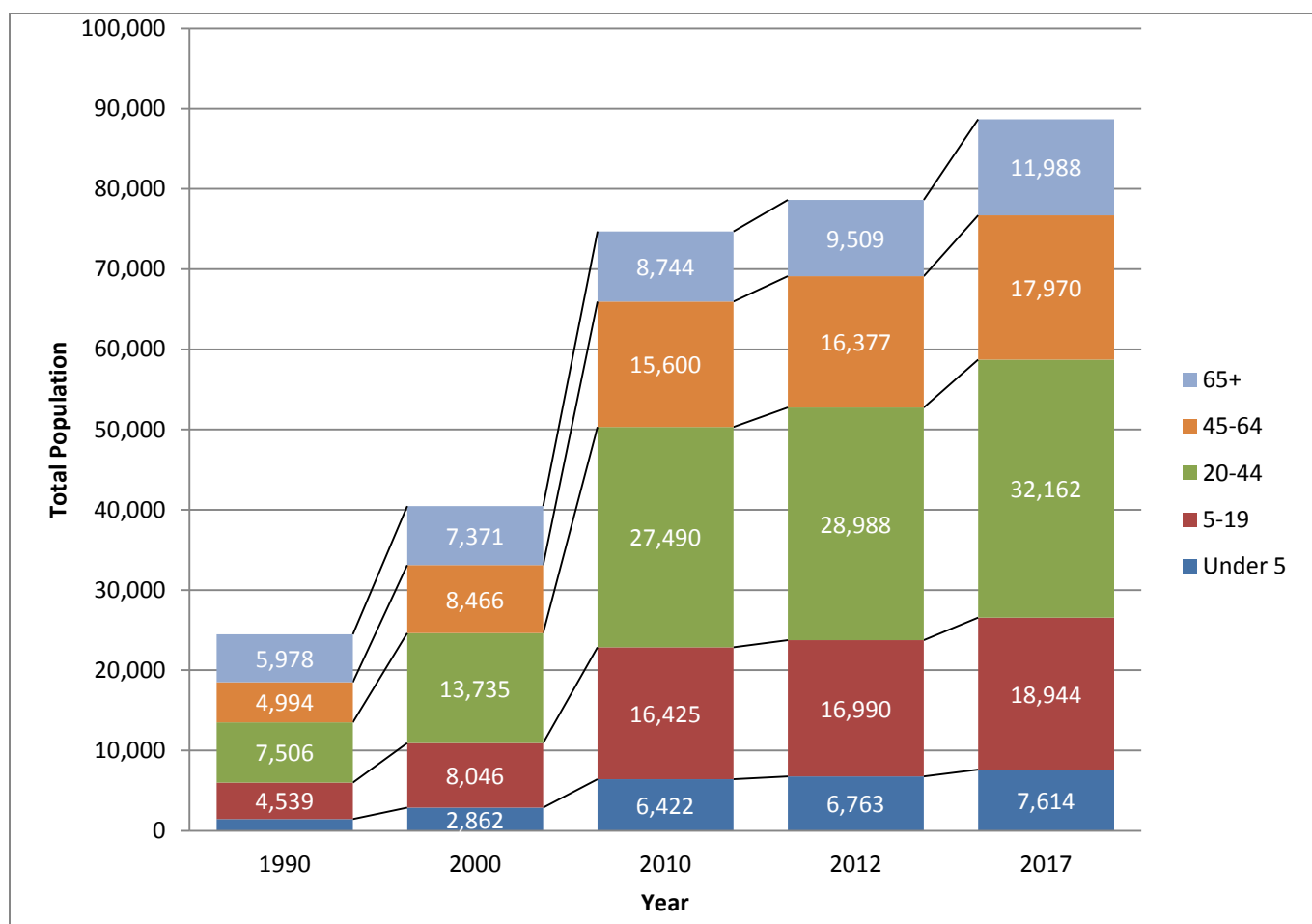
Source: ESRI Business Analyst Online, by Custom Region.

### General Population by Age

Figure 12 provides the historical and projected general population by age grouping.

- The number of children Under 5 increased by 124.4% from 2000-2010. This population is projected to increase by 12.6% from 2012 to 2017.
- The relevant school-age population, age 5-19, increased by 104.1% from 2000-2010. This population is projected to increase by 11.5% from 2012 to 2017.
- The 20-44 age group numbered 13,735 in 2000 and increased 100.1% by 2010. This age group is projected to increase by 10.9% from 2012 to 2017.
- The 45-64 age group numbered 8,466 in 2000 and nearly doubled in size to 15,600 in 2010. This age group is projected to increase by 10.9% from 2012 to 2017.
- Senior citizens experienced the least growth between 2000 and 2010 (+18.6%). This age group is projected to increase 26.1% by 2017.

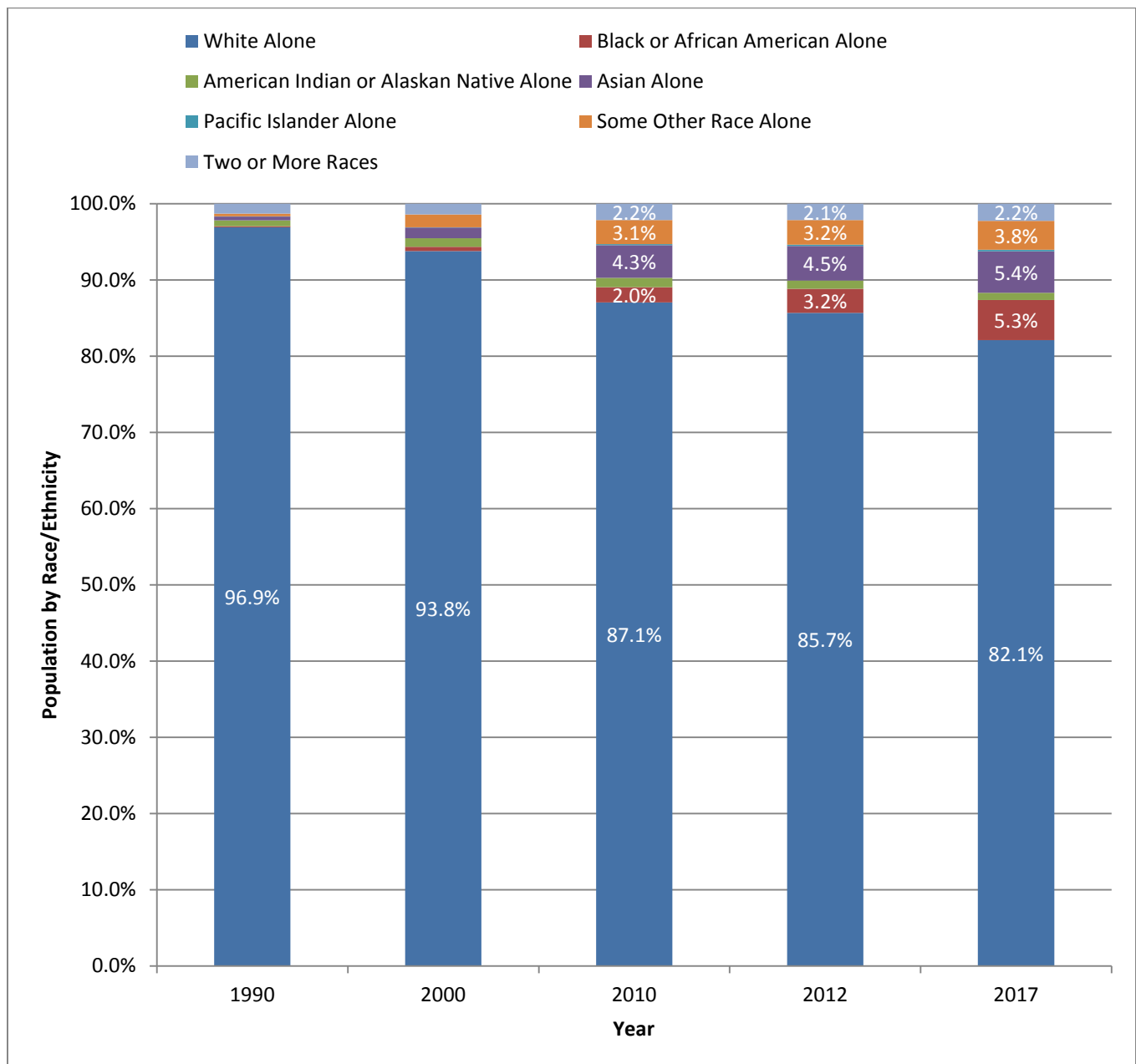
**Figure 12. Historical and Projected General Population by Age**



Source: ESRI Business Analyst Online, by Custom Region.

**General Population by Ethnicity**

Similar to BPSD enrollment trends, the general population of BPSD is becoming more diverse. In 1990, 96.9% of the BPSD general population was White and .94% of the general population was of Hispanic Origin. By 2017, it is projected that Whites will comprise 82.1% of the BPSD general population and 8.71% of the general population will be of Hispanic Origin (Figure 13). The proportion of all other races is increasing.

**Figure 13. Historical and Projected General Population by Race/Ethnicity**

Source: ESRI Business Analyst Online, by Custom Region.



**Student Generation Factors**

“Student generation rates” are one of the critical components of facility planning. When analyzing the impacts of future residential development, student generation rates are used to project the number of students the District can expect from a planned development. The data is used to determine if and when new school facilities will be needed and to make critical facility decisions, such as potential boundary adjustments or the addition of new classrooms to existing sites. The housing mix of the planned development, including detached units, attached units and apartments, is compared to similar housing in existing neighborhoods in the District to project how many students will reside in the new development. Next, the number of years a new development will take to be completed is calculated with the projected number of students from the various housing types. This determines how many students from each grade level will be generated over the build-out of the new community.

The County of Benton Assessor’s office provided a database of all residential housing units constructed within the BPSD boundary between 2006 and 2012. This database was cross-referenced with the 2012-13 BPSD student list to determine the number of students generated per housing unit by grade level, by year of construction, and by housing type. A total of 5,663 units were constructed within the BPSD from 2006 to 2012, generating a total of 3,242 students for the District to house, or a total per housing unit average student generation rate of 0.572 students.

It is critical the District remain aware of potential development and be proactive in working with the planning agencies serving the District. Further, these rates should be monitored annually to ensure that any significant variations are accounted for in the District’s planning efforts.

The K-12 District-wide student generation factors by year and grade group are outlined in Table 3.

**Table 3. Student Generation Factors: District-wide**

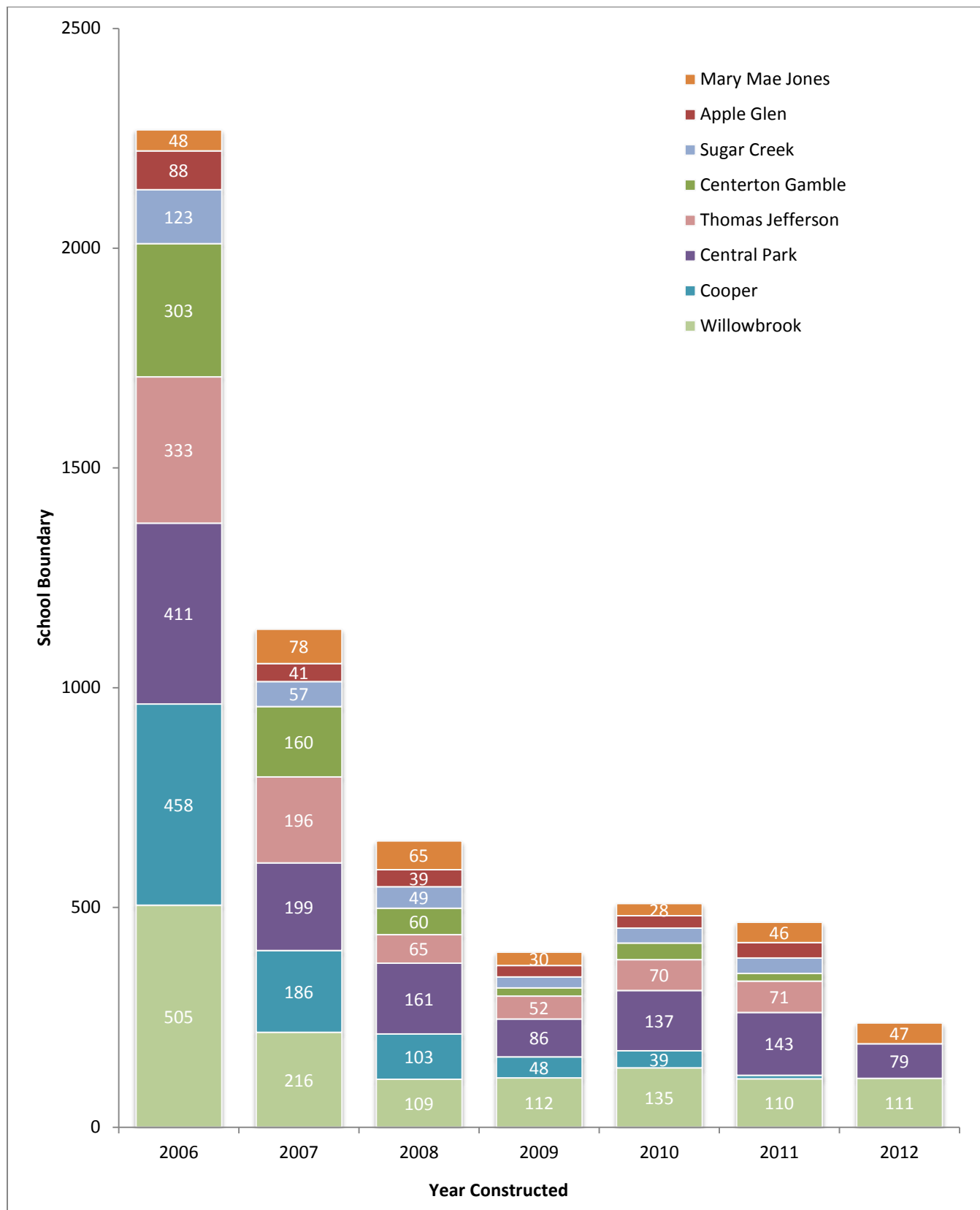
Year Constructed	Units	Students	K-4	5-6	7-8	9-12	Total SGR
2006	2,269	1,477	0.294	0.119	0.095	0.143	0.651
2007	1,133	586	0.235	0.100	0.077	0.106	0.517
2008	651	378	0.258	0.103	0.094	0.126	0.581
2009	398	214	0.244	0.090	0.090	0.113	0.538
2010	509	227	0.210	0.071	0.067	0.098	0.446
2011	466	299	0.324	0.101	0.097	0.120	0.642
2012	237	61	0.118	0.046	0.046	0.046	0.257
<b>Total</b>	5,663	3,242	0.262	0.102	0.087	0.121	0.572

Schreder & Associates mapped all new housing units constructed in the District from 2006-2012 and totaled them by the school boundary in which they were located. Student generation factors were prepared for each school boundary (Table 4). Homes constructed in the Apple Glen, Sugar Creek, Centerton Gamble, Willowbrook, and Central Park school boundaries generated the highest number of students per unit. Homes constructed in the Mary Mae Jones and Cooper school boundaries generated the least number of students per unit. The number of students generated by new home construction varies greatly by school boundary, from .432 in the Cooper school boundary to .728 in the Apple Glen school boundary.

**Table 4. Student Generation Factors by School Boundary: New Residential Construction**

School Boundary	Units	Students	SGR
Apple Glen	257	187	0.728
Centerton Gamble	598	379	0.634
Central Park	1216	731	0.601
Cooper	842	364	0.432
Mary Mae Jones	342	150	0.439
Sugar Creek	323	233	0.721
Thomas Jefferson	787	398	0.506
Willowbrook	1298	800	0.616

Schreder & Associates prepared an analysis of homes constructed by year, by school boundary in order to determine levels of construction by area. Home construction peaked in 2006 at 5,663 then declined to 398 in 2009 and 237 in 2012. Figure 14 demonstrates the number of homes constructed by year, by school boundary.

**Figure 14. Homes Constructed by Year, by School Boundary**

## SECTION D: LAND USE & PLANNING

School districts are inextricably linked to their community(s). The land use and planning policies of the City and County agencies affect where and how schools will be constructed as well as the fate of older schools within the District. In order to understand the connection between the schools in Bentonville Public School District, and the cities and town they serve, an overview of policies and planning is included in this section of the study. By understanding the fabric of the communities, the policies and goals of the cities and the goals of the Bentonville Public School District, planning for the future will be made easier.

Bentonville Public School District serves three cities and the County areas: the cities of Bentonville, Centerton, and Bella Vista. The Mayors of each city were interviewed and planning agencies were contacted to provide information and documents in regards to land use and planning, development and other pertinent information for the Bentonville Public School District. A brief summary of that information is provided in this section.

### **Benton County**

Benton County is known as the “Cornerstone of the State” and is located in the extreme northwest corner of Arkansas and borders Missouri and Oklahoma. The region is geographically part of the Ozark Plateau. The County has become one of the fastest growing population and economic growth centers in the country. The county leads the state in poultry production and is home to the world headquarters of Wal-Mart (located in Bentonville). In addition numerous Fortune 500 companies have regional offices in Benton County.

### ***Planning***

The Benton County Planning Department, under the supervision of the County Judge, is responsible for regulations, standards, and specifications for the subdivision, conveyance, development, and improvement of unincorporated land in the County. This includes, but is not limited to subdivisions, informal plats, tract and lot splits, commercial development, master development plans, planned unit development, all other types of commercial and private development. The County has adopted the Blue Book for Building Construction. This document outlines not only regulations but also sets

standards for the subdivision, conveyance, development and improvement of unincorporated land. In addition to the general provisions for land development, the document also provides regulations for development by specific type, i.e. subdivisions, tract splits, informal plats, plat modification, commercial development, etc. The Regulations, Standards and Specifications for the Subdivision, Conveyance, Development and Improvement of Unincorporated Land in Benton County, Arkansas (revised April 2011) provides detailed provisions for the subdivision of land, platting procedures, plat details, tract splits, development master plan (DMP), informal plats, plat modification, planned unit developments (PUD), commercial and industrial large scale development. Cities can annex land in two ways, voluntary and involuntary. A voluntary annexation occurs when the owner of the property goes to the City and requests to be annexed; an involuntary annexation occurs when a City applies to acquire the property by ruling of the County Court. Both types of annexations must go to the County Judge for a hearing to approve or disapprove the annexation.

Benton County's Plan for Land Use and Development is intended to convey county government's determination as to how unincorporated areas should be developed and appear at some reasonable future date. These policies put forth goals for land use such as protection of agricultural lands, retention of the rural character of the county, and encouragement of growth patterns that will sustain the county's natural environment, open spaces, and water resources.<sup>1</sup>

*Section I.*

*"Provide a basis for making decisions concerning development in the unincorporated areas under its jurisdiction; this being all areas outside the declared planning jurisdictions of the municipalities within the county.*

- *Coordinate and give direction to public and private development.*
- *Protect the agricultural and rural residential flavor of the county and the environment.*
- *Balance community interests and goals with individual property rights.*
- *The quorum court recognizes the need to encourage a logical and orderly development of the lands within the county's jurisdiction...*<sup>2</sup>

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<sup>1</sup> Benton County Land Use and Development Guide, pg 7.

<sup>2</sup> Ibid. pg.2.

**The City of Bentonville**

Bentonville is the county seat of Benton County, and the tenth largest city in Arkansas. The city is centrally located in the County. The City was incorporated in 1873 and is the location of the headquarters of Walmart in addition to JB Hunt and Tyson.

In 2005, the City adopted a downtown master plan to increase downtown development. Crystal Bridges museum was announced shortly after the downtown plan was adopted, indicating a leadership role by the City in encouraging Bentonville as a destination. Arts and culture have become a major economic driver with the city partnering on hundreds of events in the City. The City is expected to continue to grow, economically and in population.

***City Planning***

The Planning Division of the City is responsible for managing growth and development within the City of Bentonville and the planning areas surrounding the corporate City limits. The Planning Department also assists with the preparation and adoption of the City's General Plan and regulations to implement its guiding policies. Current planning is the implementation of the City's long range plans through the development review process for large scale developments, planned zoning districts and subdivisions, and through staff recommendations relating to zoning and conditional use applications.<sup>3</sup>

***General Plan, City of Bentonville, May 2007***

The General Plan includes the following elements: smart growth, community development, physical environment, public facilities, transportation, intergovernmental coordination economy, and an implementation program. The plan addresses all aspects of current and future planning.

"The General Plan is critical to the future of the City—to define the urban form, economic success, and quality of life for its citizens.....The General Plan should guide public and private individuals in decisions about land use, development, housing and a wide range of other issues throughout the planning area...The plan is intended to be a dynamic document that responds to change in the community...The Plan outlines a strategy to preserve or enhance residents' quality of life, while addressing the many growth related challenges facing the City."<sup>4</sup>

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<sup>3</sup> City of Bentonville.

<sup>4</sup> City of Bentonville, *GENERAL PLAN, 2007*. pg.1.

The City, in order to focus on key development issues, developed guidelines and procedures to assure the unique community character of Bentonville would be preserved while allowing for growth, both residential and commercial. The community development section of the plan addresses a full range of issues related to new development, growth management, and redevelopment. The General Plan highlights the key community development issues facing the community, defines community goals and objectives, identifies local development policies, and recommends strategies to achieve community goals. General components of this development include mixed use development (combining residential and commercial or office uses), conservation subdivision to preserve open space and natural features, incentive zoning to encourage infill development and preserve open space, and community policing through environmental design.<sup>5</sup>

In order to implement these goals, the City developed a land use categories and provided a land use map which outlines the desired location for the various land uses outlined in the plan. These categories will provide direction to City staff and entrepreneurs as the City continues to develop. Table 5 outlines the Land Use categories adopted by the City.

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<sup>5</sup> Ibid, pg. 2-3.

**Table 5. Land Use Categories, Bentonville General Plan, 2007**

Category	Description	Average DU/Acre	Zoning Districts
<b>Agricultural (A)</b>	Agricultural lands and other undeveloped lands outside the City limits	Less than 1DU/Acre	A-1
<b>Residential Estates (RE)</b>	SFD on larger lots	0.5-1 DU/Acre	RE
<b>Low Density Residential (LDR)</b>	SFD with home occupations, schools, churches, etc.	1-6 DU/Acre	R-1, PRD
<b>Medium Density Residential (MDR)</b>	Moderate-Density Residential development serves as a transition between commercial and low-density residential land uses.	7-12 DU/Acre	R-2, R-3, R-MH, R-ZL, PRD, R-C2
<b>High Density Residential (HDR)</b>	High density residential structures and mixed use	Up to 24DU/Acre	R-4, PRD, R-C3
<b>Commercial ©</b>	Commercial uses	n/a	C-1, C-2, C-3, C-4
<b>Office (O)</b>	Office uses	n/a	R-O, C-1
<b>Industrial (I)</b>	Industrial uses (shipping, light manufacturing)	n/a	I-1, I-2
<b>Mixed Use (MU)</b>	Mix of residential and non-residential development	7-12 DU/Acre	R-O, C-3, PUD
<b>Downtown Mixed Use Residential (CMUR)</b>	A range of residential types and densities with supportive commercial uses.	Variable	R-1, R-2, R-3, R-ZL, R-4, R-O, PRD, R-C2, R-C3

***Residential Development***

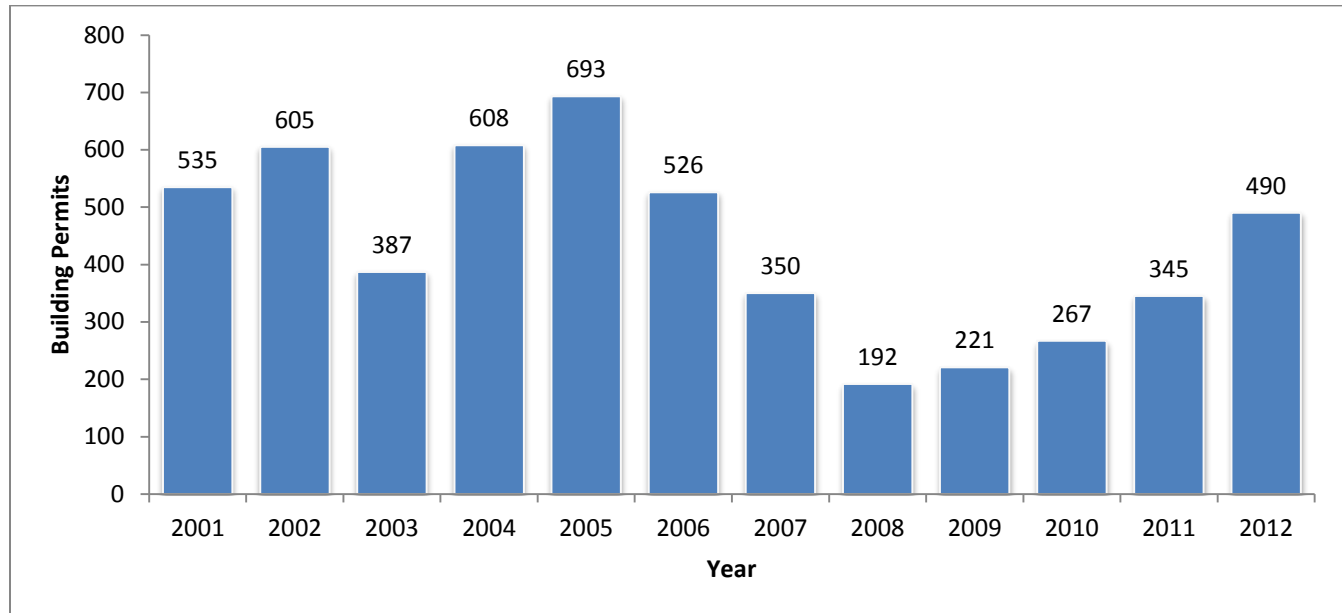
The City of Bentonville issues an Annual Development Report which analyzes construction data for all types of construction within the City (single family, multifamily, residential alterations, new commercial, etc. In 2012, the annual report demonstrated that the construction trend is continuing upward with large scale development, preliminary plats and lot splits all increasing in 2012. The 18% increase in preliminary platted lots suggests an improvement in the housing market. In addition, single family valuation increased by 57% suggesting larger and/or more expensive homes are being built.

Between 2001 and 2012 the City of Bentonville realized the construction of 8,217 housing units with 5,219 single family dwellings and 2,998 multi-family units. While residential development



decreased between 2005 and 2008, development began to increase again in 2009 and has continued to increase each year. Figure 15 demonstrates building permit activity since 2001.<sup>6</sup>

**Figure 15. Building Permit Activity, City of Bentonville**



Source: State of the Cities Data System.

According to City planners, 100 permits were issued between January and March, 2013. Current approved plats (preliminary and final) are outlined in Table 6. The Southwest area of the City is the main area for new development. Based on this research and information, the BPSD must remain proactive in monitoring development as schools will need to be constructed to house new students.

**Table 6. City of Bentonville Current Projects**

City of Bentonville	Units	SFD	Plat Status
Windwood, Phase V	26	26	Final
Willowbrook Farms, Phase 1	46	46	Final
Coler Creek Subdivision	31	31	Final
Lochmoor Club, Phase III	29	29	Preliminary Plat
Windwood, Phase VI	26	26	Preliminary Plat

Source: City of Bentonville Planning Department

<sup>6</sup> *2012 Annual Development Report. Community and Economic Development, Bentonville. pp. 1-4*

## **The City of Centerton**

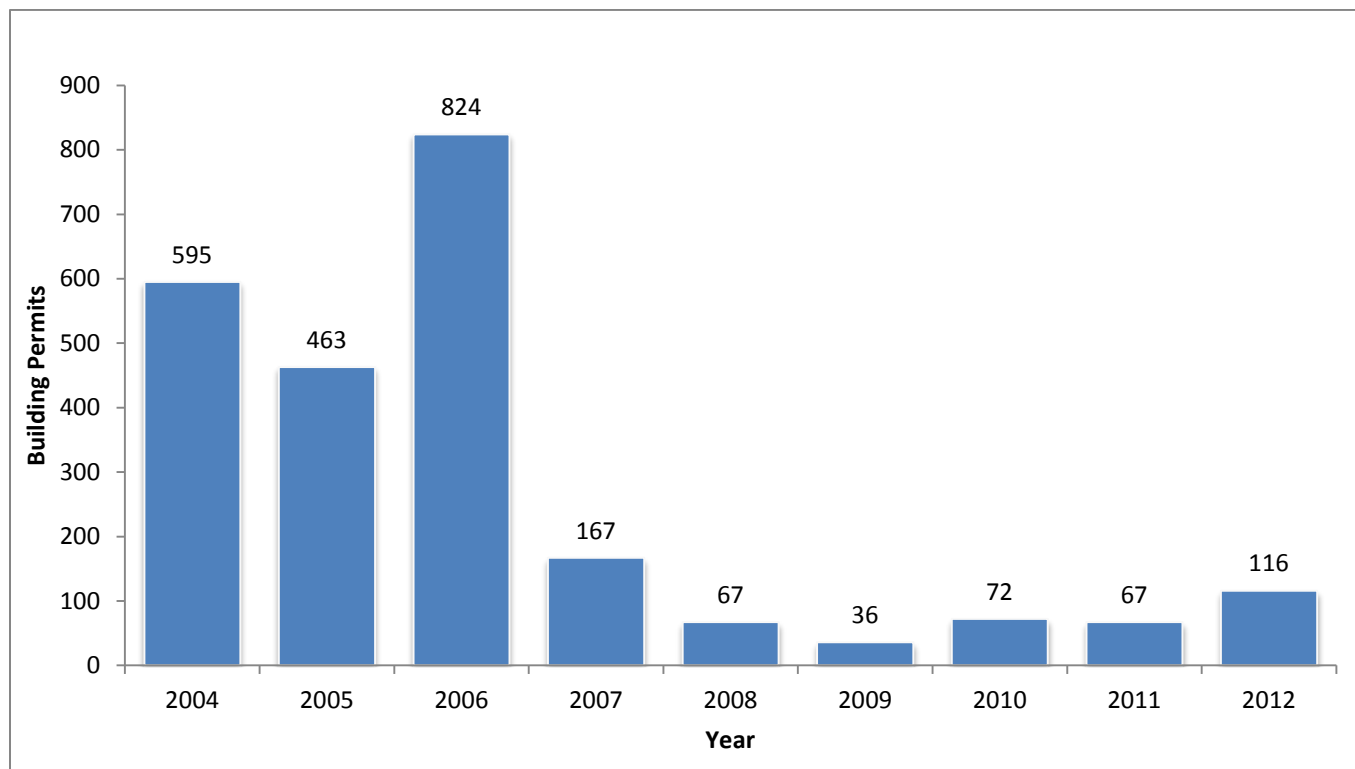
### ***Background/Overview***

Centerton is located near the center of Benton County, hence its name. The downtown is five miles from the Northwest Arkansas Regional Airport and four miles from Walmart General Offices. The population of Centerton has increased significantly since 2000 and it is one of the state's fastest growing cities. Centerton's central location in Northwest Arkansas has been and continues to be a factor in the increase in housing units and residents in this area. According to City officials, the reputation of the Bentonville Public School District, in addition to the affordability of residing in Centerton, are the two major reasons for the City's rapid growth since 2001.

### ***Residential Development***

Between 2004-2006, the City realized the construction of 1,882 new homes. However, permit activity significantly declined beginning in 2007 with 167 permits issued that year. The construction of residential units has declined significantly since 2006 with a slight increase between 2011 and 2012, as demonstrated in Figure 16.

**Figure 16. Building Permit Activity, City of Centerton**



Source: State of the Cities Data System.

## **The City of Bella Vista**

### ***Background/Overview***

Bella Vista is a planned community located in the Ozark Mountains of Northwest Arkansas, within Benton County. Bella Vista was envisioned by Joe Cooper who promoted his idea of “graduated retirement”, in which people bought land that would be paid in full by the time they were ready to retire. Cooper sold 37,000 home sites, with approximately 13,000 currently developed.<sup>7</sup> Bella Vista is located in a very centralized location in Northwest Arkansas, which was recently named the strongest regional economy in the United States.

### ***City Planning***

Bella Vista was incorporated as a city on January 1, 2007. Bella Vista then adopted a Land Use Plan to assist in guiding the development of the City through the next 20 years. The planning commission adopted the following mission statement as it began its work in formulating a Land Use Plan.

“With a neighborly wave, Bella Vista is home to a community of active, involved citizens of all ages. The City must continue its legacy of a balanced pattern of development that harmonizes with the land. Doing so will enable the City to encourage attractive, affordable housing and increased recreational opportunities. As the gateway to northwest Arkansas, Bella Vista must continue to capitalize on the area’s natural beauty and provide opportunities for business and industrial investment.”

The Land Use Plan is a planning tool intended to help guide future growth and development of the community. When adopted, the Land Use Plan will be one of the primary tools used by the City council, Planning commission, and other public/private groups to make decisions about the location of land uses and community facilities, priorities for public investment and extension of public services, business development, and transportation needs.<sup>8</sup>

### ***Residential Development***

The City of Bella Vista realized the construction of 3,205 residential units between 2001-2005. However, permits for residential construction dropped to 569 in 2006 and have continued to decrease

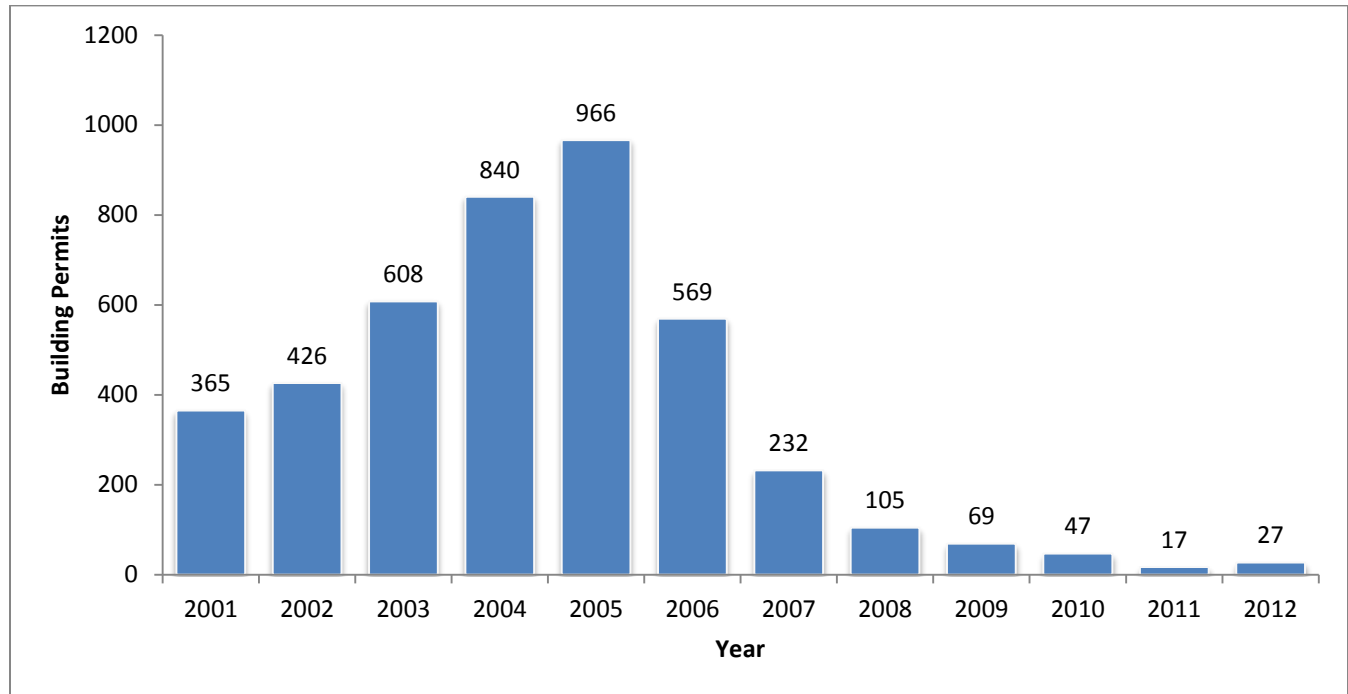
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<sup>7</sup> [www.bellavistaarkansas.org](http://www.bellavistaarkansas.org): History.

<sup>8</sup> City of Bella Vista Land Use Plan, p. 2-3

with 27 permits issued in 2012 (Figure 17). The construction of new housing units is expected to remain stable.

**Figure 17. Housing Permit Activity/City of Bella Vista**



Source: State of the Cities Data System.

### **Residential Development and Land Use Impact on BPSD**

The communities served by the BPSD experienced significant residential development between 2001 and 2006 as the Northwest Arkansas economy grew and population increased throughout the region. While residential development decreased between 2007 and 2009, residential development is again increasing within the District boundaries. The District will need to remain aware of development and work closely with all cities to coordinate adequate school facilities. Coordination is essential in the following three areas: long-range land use and facilities planning, review of individual residential development projects, and review of any proposed reconfiguration of the schools.

## SECTION E: ECONOMIC DEVELOPMENT

Economic factors within the Northwest Arkansas Region have a direct impact on the communities served by the Bentonville Public School District. A vibrant, growing economy will generate an increase in population, which, in turn, will increase the need for schools, services and other businesses (restaurants, retail stores, recreational facilities, etc.). The increase or decline in the economy affects the population and, in turn, the number of students for the District to house. Enrollments tend to fall in worsening economic conditions and increase during stabilization or a period of economic growth. Therefore, it is prudent to review economic trends as part of this demographic analysis.

### **Historical Population Growth: Benton County**

Benton County is comprised of 846 square miles and borders Missouri, Kansas, and Oklahoma in the northwest corner of the State. Benton County is one of the counties within the Northwest Arkansas Region (comprised of Benton, Madison, Washington, and McDonald County in Missouri). The region includes 50 incorporated cities and 15 unincorporated communities.

In 1980 the population of Benton County was 78,155 persons, but by 1990 the population had increased 24.8% to 97,499. During this same decade the population of the State had increased by 2.8%, significantly less than Benton County. In 2000, Benton County population had increased to 153,046 an increase of 57.3% since 1990, and in 2010, the census reported a population of 221,339 or an increase of 44.6% during the last decade. Benton County is now the 2<sup>nd</sup> most populated county in the State of Arkansas.

The growth of the county population is directly related to the growth of the economy. Between 1980 and 1990, the population increase was largely due to organic growth of the corporations as they became multi-national. This area remained fairly flat in growth until the late 1990's and early 2000's. As the three major companies within this area (Wal-Mart, J.B. Hunt, and Tyson) grew, employment also increased as people moved to the area to work. In the late 1990's vendors began to move offices to the area to be in close proximity to the headquarters of the companies (this formula was implemented first by Wal-Mart). As vendors established offices, families moved into the area, requiring housing and services in addition to retail stores. In 2001, the housing boom began as more companies established offices in this region and, with inexpensive housing, good schools, and a welcoming environment, the population continued to increase, bringing more need for services and other amenities. In 2006, the

economy began to decline and was negative in 2007. However, in 2010 the economy began to rebound and is continuing to do so. The next period of growth in the area may be driven by the leisure/tourism sector, bringing hospitality jobs, service workers, and also professional workers (i.e. lawyers, human resources, etc.) to the region.

### **Northwest Arkansas Council**

The Northwest Arkansas Council is a nonprofit organization that has been working since 1990 to solve regional problems and develop initiatives to improve the quality of life in Northwest Arkansas. This organization collaborates with business and civic leaders, local chambers of commerce and other key stakeholders to develop and implement a strategy for improving Northwest Arkansas in four specific areas:

- Regional economic development
- Community vitality
- Education excellence
- Infrastructure

The Council works with potential new businesses to assist them from the research phase to the completion of a move to the region. The Northwest Arkansas Development Strategy is the blueprint for growing jobs and creating opportunities in the Northwest Arkansas area. A steering committee of approximately 30 business and civic leaders was established to develop a strategy for producing growth in key economic sectors within the region.<sup>9</sup>

This Council works closely with Wal-Mart, Tyson Foods, J.B. Hunt Transport to connect companies with key stakeholders within the community to create a plan to relocate to the area. Economic activity has attracted new residents, but affordability, education, arts, and recreational opportunities assist in creating an excellent living environment and quality of life.

### **State of the Northwest Arkansas Region Report: 2012**

This publication, prepared annually by the Center for Business and Economic Research at the Sam M. Walton College of Business, “presents the Northwest Arkansas region through the lens of economic and quality of life indicators”. This report outlines trends in “employment, business growth, personal

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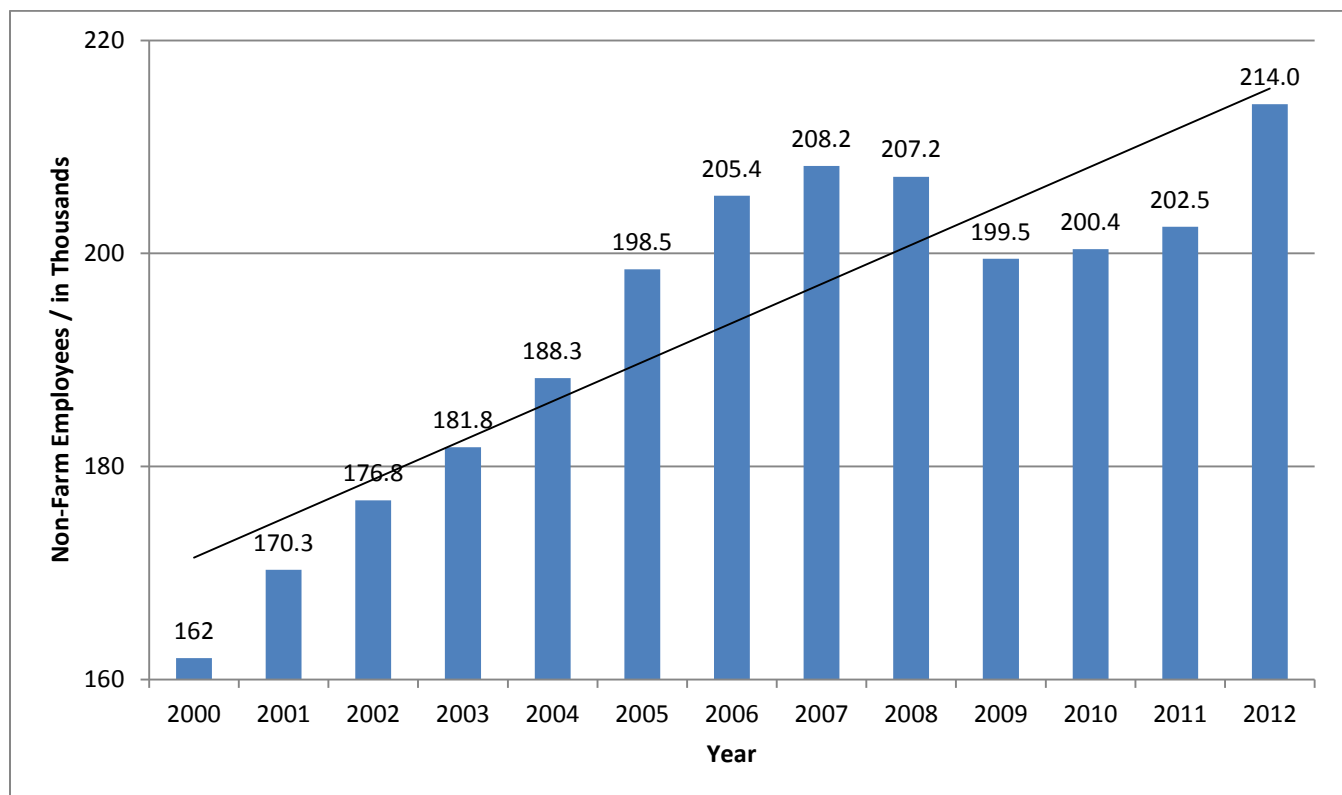
<sup>9</sup> [www.nwacouncil.org](http://www.nwacouncil.org): *Development Strategy*.

income, academic research and development, cost of home ownership and the cost of living, poverty indicators, commuting statistics, health indicators”.

### ***Employment by Sector***

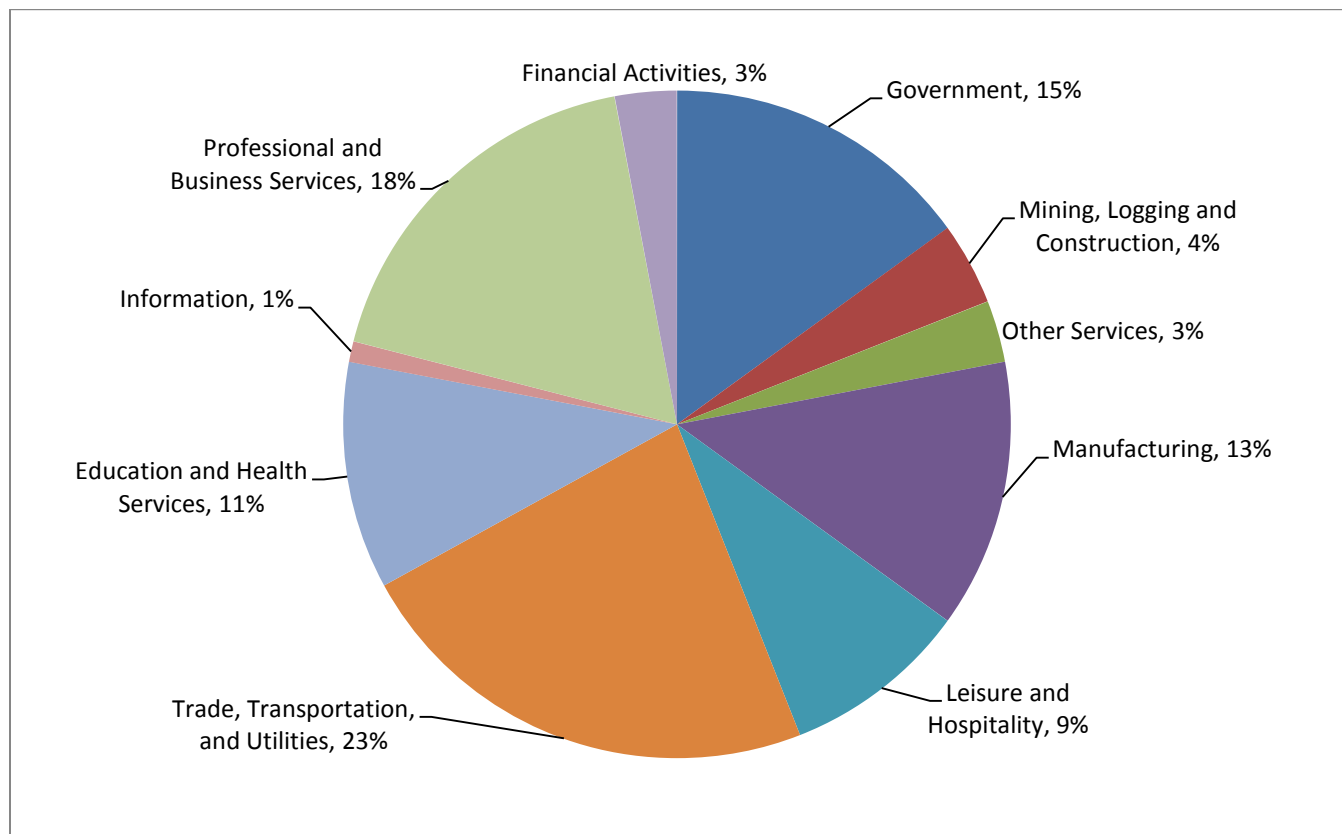
Even though this region was impacted by the nationwide recession, the current economy has recovered. This recovery was evidenced by the addition of 7,200 jobs between 2011 and 2012. The total non-farm employment in December 2012 was 213,900 jobs, which represents a new peak employment. Figure 18 below demonstrates the recovery of the economy for non-farm employment.

**Figure 18. Non-Farm Employees. Northwest Arkansas Region. 2000-2012**



Source: Kathy Deck, Director, Center for Business and Economic Research, Sam M. Walton College of Business, U of A.

Growth sectors within the region include Professional and Business Services, Education and Health Services, Leisure and Hospitality Services, with stable sectors being Trade, Transportation and Utilities and Government. Declining sectors include Manufacturing and Information. Figure 19 demonstrates employment by sector as of December 2012.

**Figure 19. NWA Employment by Sector - December 2012**

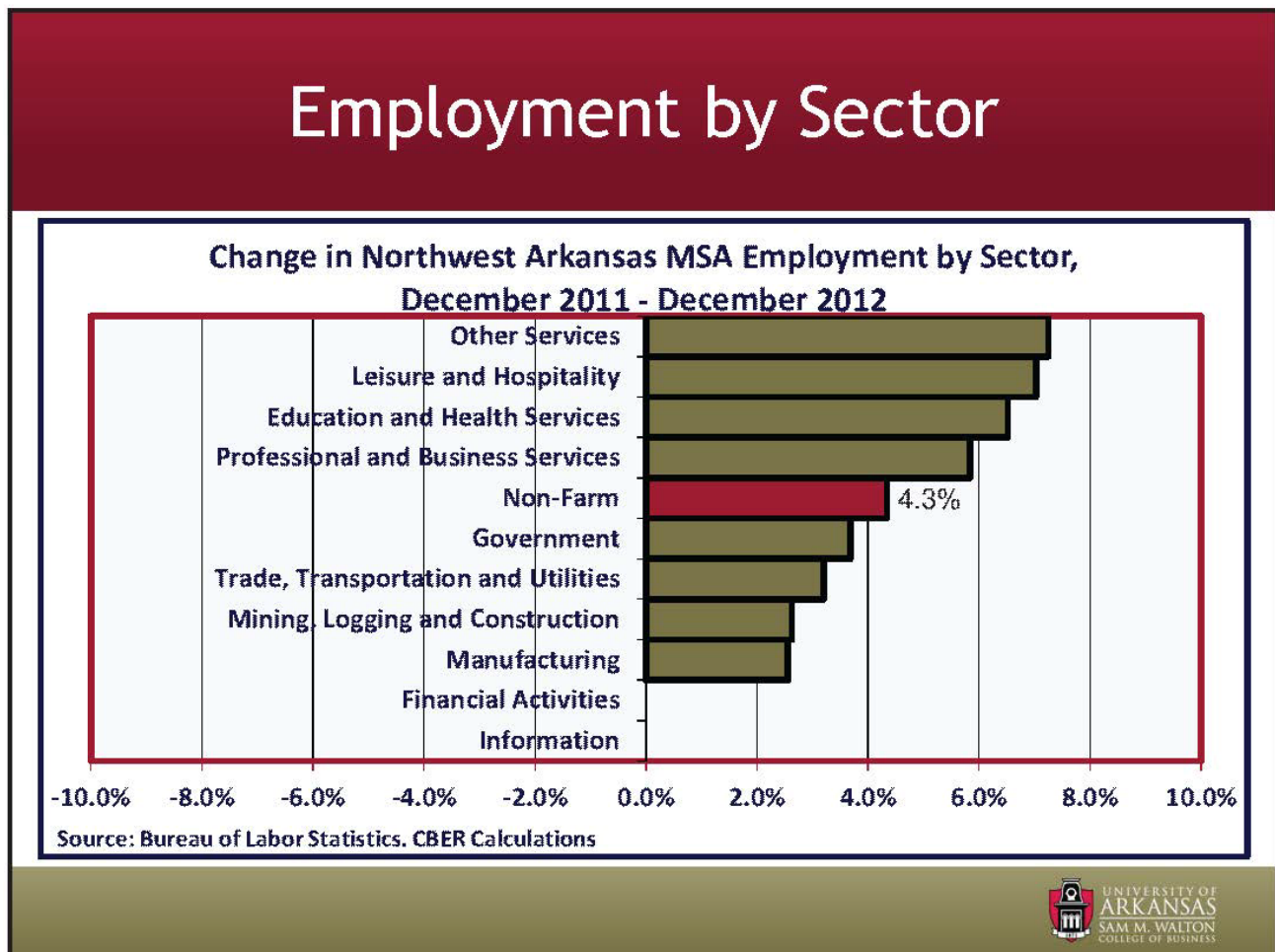
Source: Kathy Deck, Director, Center for Business and Economic Research, Sam M. Walton College of Business, U of A.

The economy in NWA is continuing to experience growth in many employment sectors. This growth is expected to continue. Employment in the sectors of Leisure and Hospitality, Education and Health Services, Professional and Business Services increased by over 6% between December 2011 and December 2012 (Figure 20). Financial Activities and Information were the only sectors that remained flat or declined during this time period.

This trend in the economic sector combined with a low unemployment rate (5.1%, December 2012) indicates that the region is continuing to expand in all areas.



Figure 20. NWA Employment Growth and Decline by Sector



Source: Kathy Deck, Director, Center for Business and Economic Research, Sam M. Walton College of Business, U of A.

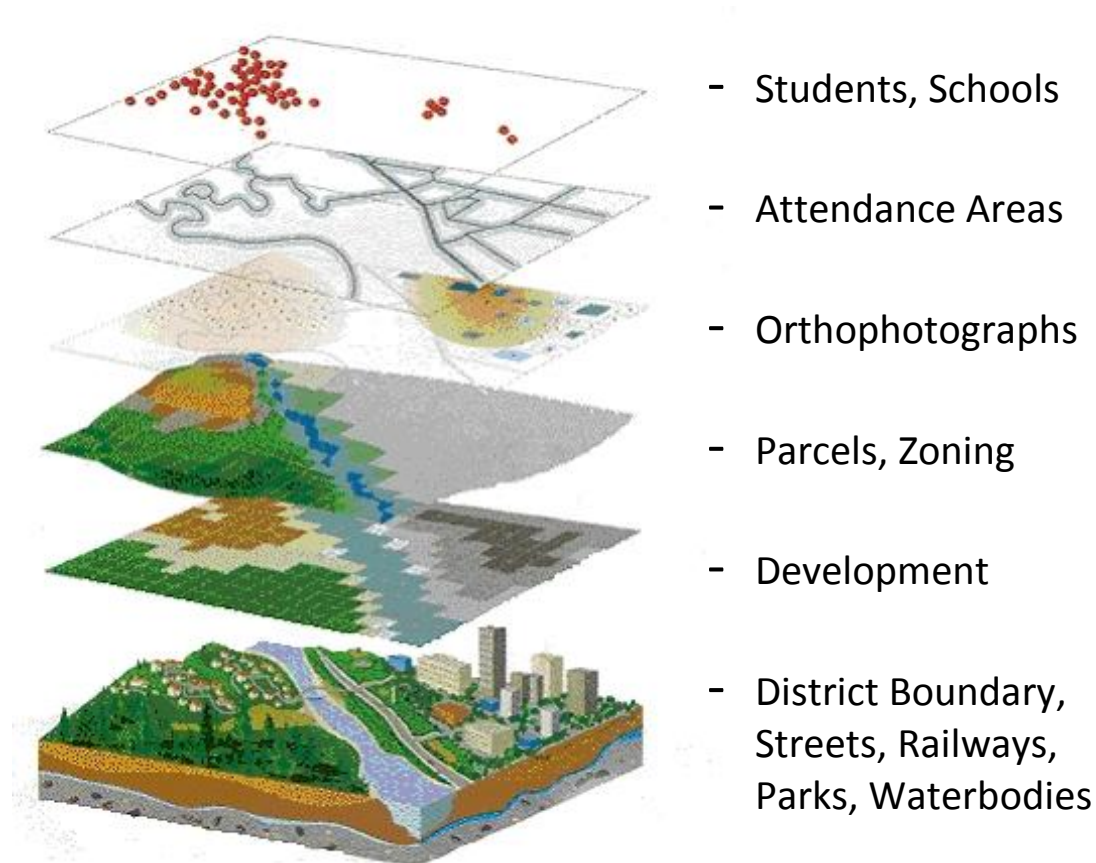
### ***BPSD Planning Coordination***

Since school facilities cannot be constructed in a short period of time, the Bentonville Public School District should coordinate planning efforts with the local and regional level. Anticipated changes in the Northwest Arkansas Region, in addition to changes in Centerton, Bella Vista, and Bentonville, will affect enrollments in BPSD. Therefore, the District should remain aware of the economics of the region, the planning processes for development within the cities, and the projected growth for these areas.

## SECTION F: SPATIAL ANALYSIS

The consultant utilized a computer mapping software, a Geographic Information System (GIS), to map and analyze the Bentonville Public School District. A GIS is a collection of computer hardware, software, and geographic data that allows us to capture, store, update, analyze and display all forms of geographic information. Unlike a one-dimensional paper map, a GIS is dynamic in that it links location to information in various layers in order to spatially analyze complex relationships. For example, within a GIS you can analyze where students live vs. where students attend school. Figure 21 provides a visualization of the layers developed for the BPSD specific GIS.

**Figure 21. BPSD GIS Layers**



**BPSD Specific GIS Data**

One of the most crucial pieces of GIS data that aids in the educational and facility planning process is District-specific GIS data. Facility Master Planning is a multi-criteria process, which may result in a District making decisions regarding the consolidation of schools, renovation of existing schools, reconfiguration of current schools, and/or site location analysis and construction of new schools. Combining District-specific GIS data (students, attendance areas, land use data, etc.) with basemap data (roads, rivers, school sites, etc.) significantly enhances the decision making process. Current District boundary maps are provided in Figures 22-26.



Figure 22. 2013-14 Elementary School Boundaries

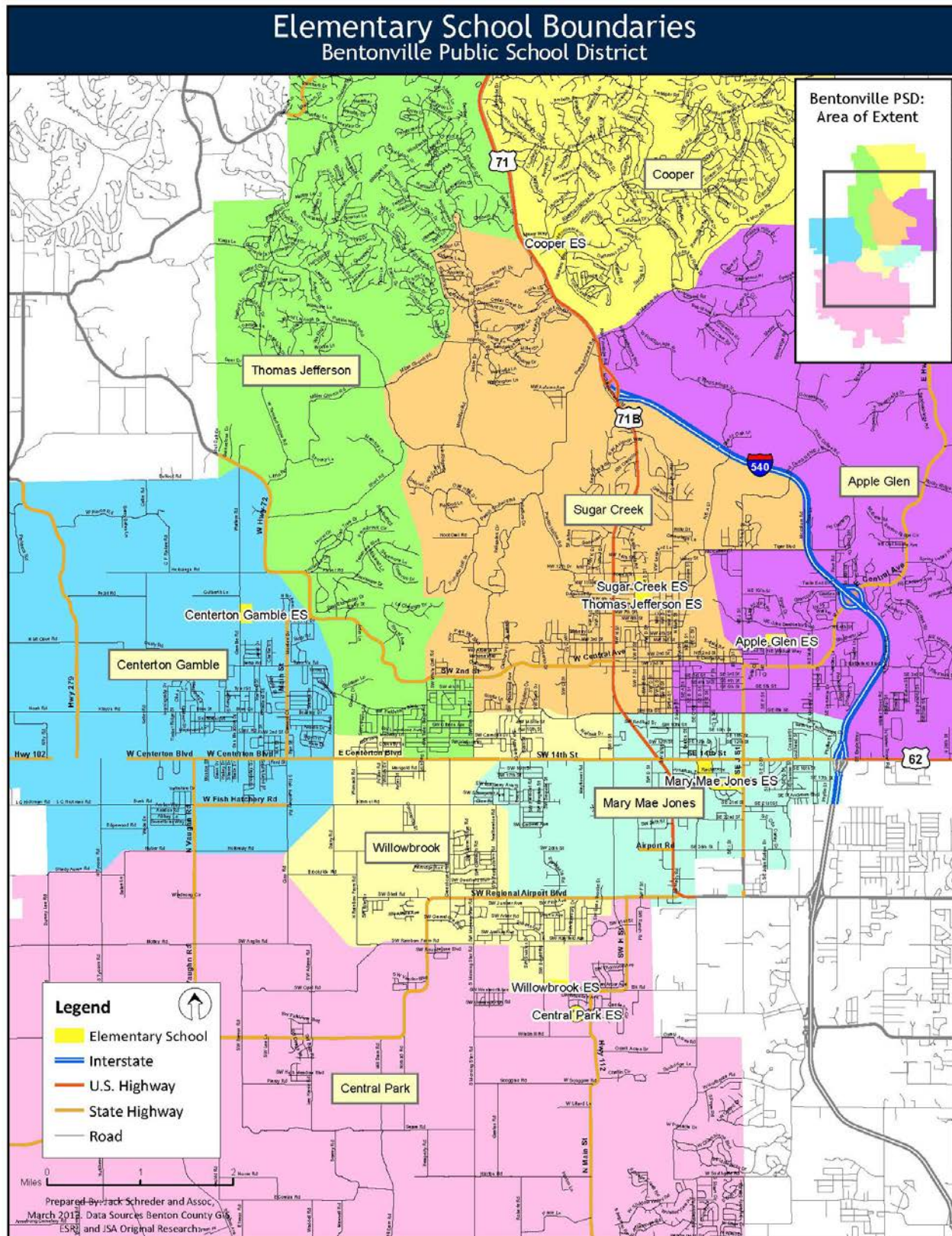




Figure 23. 2013-14 Non-Traditional Elementary School Boundaries

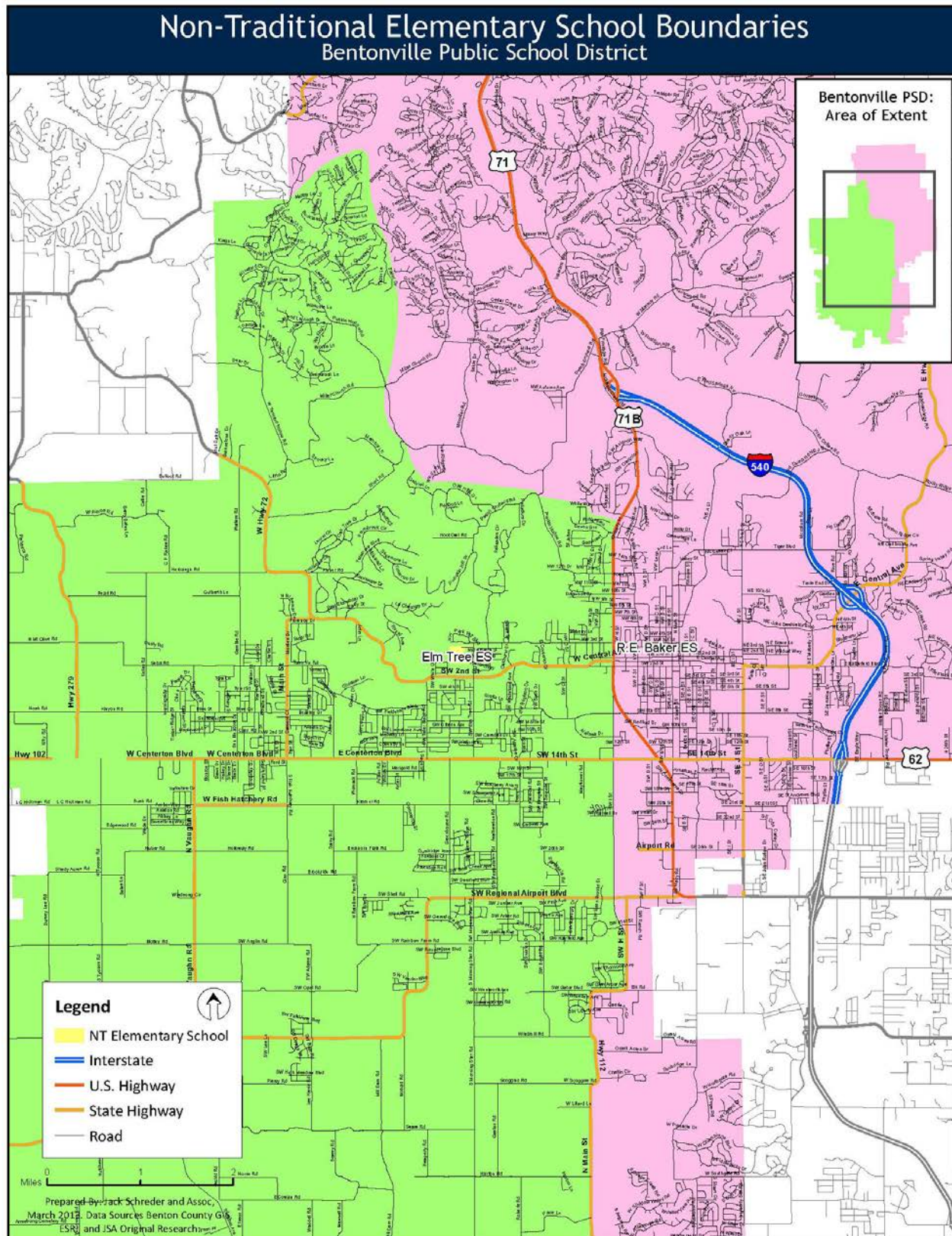
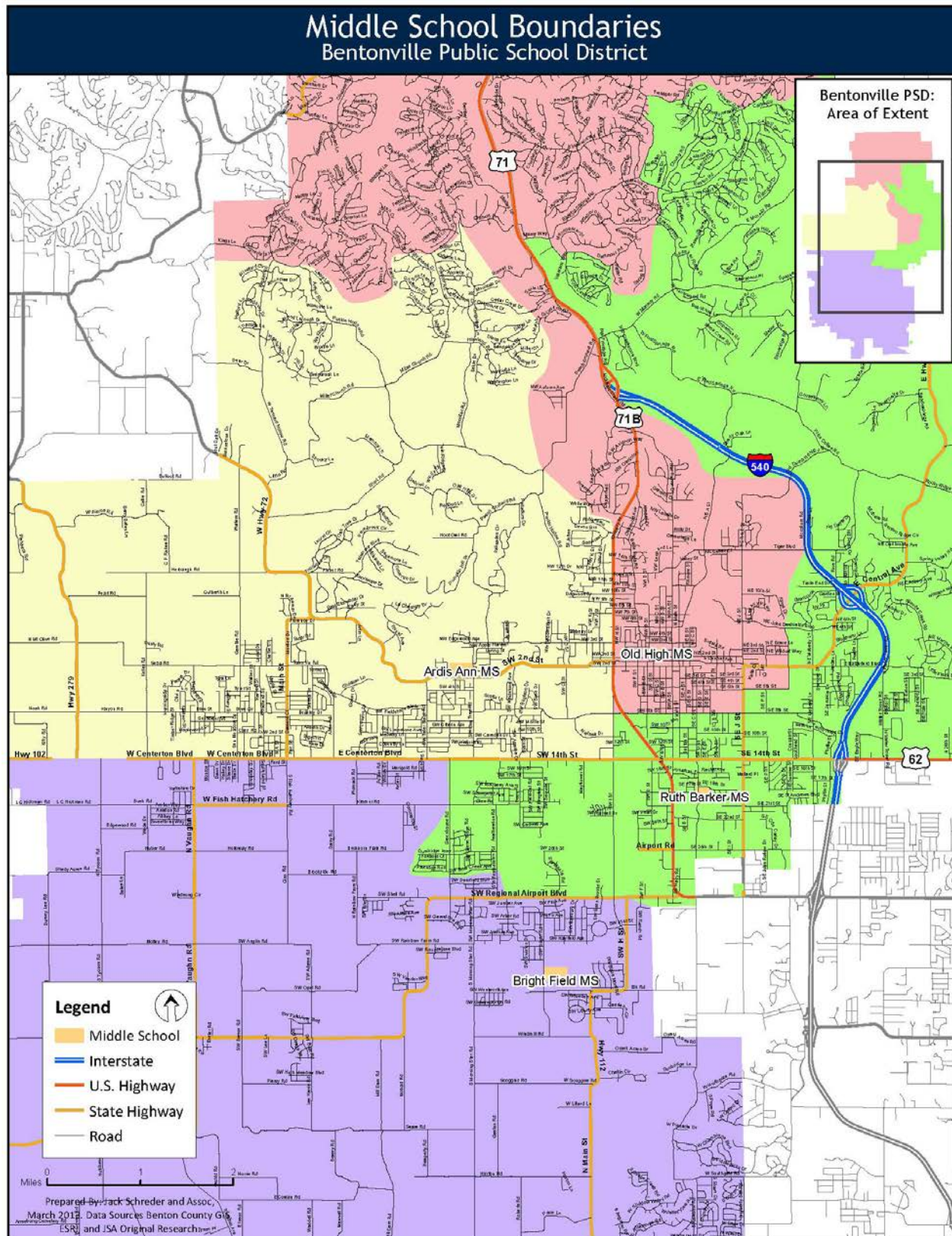




Figure 24. 2013-14 Middle School Boundaries





**Junior High School Boundaries**  
Bentonville Public School District

Bentonville PSD:  
Area of Extent

Lincoln

Washington

Lincoln JH

Washington JH

J William Fulbright

J William Fulbright JH

Legend

- Junior High School
- Interstate
- U.S. Highway
- State Highway
- Road

Miles 0 1 2

Prepared by Jack Schreder and Assoc.,  
March 2012. Data Sources: Benton County GIS  
and JSA Original Research.



# High School Boundary

## Bentonville Public School District

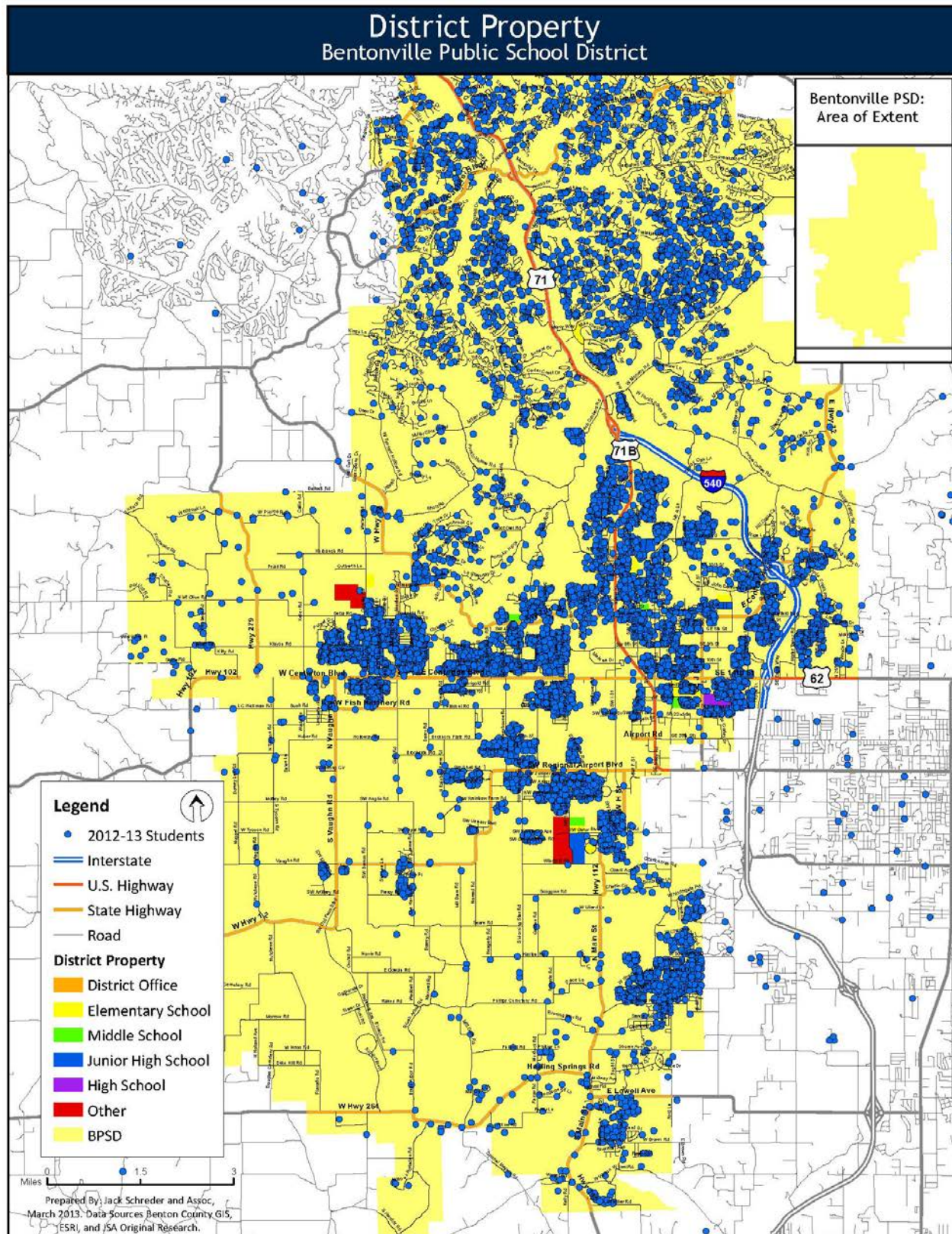


***Student Data***

The consultant mapped the 2007-08 to 2012-13 student information databases by a process called geocoding. The address of each individual BPSD student was matched in the BPSD GIS. This resulted in a point on the map for each student. Figure 27 demonstrates the distribution of 2012-13 students (or lack thereof) in the various areas of the District.

**The student totals provided in this section were derived from the geocoded student lists of traditional and alternative schools, and therefore may not directly correspond to the BPSD official enrollment totals.**

Figure 27. 2013-14 Student Resident Distribution



***Student Densities***

Once the 2012-13 students were mapped, they were analyzed and displayed by grade level, by elementary school boundary. The numbers contained in each school boundary on the following maps represents the number of students **residing** within that boundary. **These numbers do not represent school enrollments.**

JSA utilized the 2013-14 elementary school boundaries as the geography for the spatial analysis, which is meant to provide the District and their constituents with a better understanding of the density of the BPSD student population (historical, current, and projected) and where students live versus where they attend school. This analysis of the District's student population by where they reside provides vital information for facility planning, for example where and how to change boundaries, where to locate future facilities, or where to add classroom space.

***Summary of Student Densities***

Overall, the highest numbers of K-12<sup>th</sup> grade students reside in the Sugar Creek and Central Park school boundaries. Overall, the fewest numbers of K-12<sup>th</sup> grade students reside in the Mary Mae Jones and Thomas Jefferson school boundaries (Figure 28).

At the elementary school levels (K-4<sup>th</sup> grades), the highest number of students reside in the Sugar Creek, Central Park and Willowbrook school boundaries, while the fewest number of students reside in the Thomas Jefferson and Apple Glen school boundaries (Figure 29).

At the middle school level (5-6<sup>th</sup> grades), the highest number of students reside in the Sugar Creek, and Central Park school boundary, while the fewest number of students reside in the Mary Mae Jones boundary (Figure 30).

At the junior high school level (7-8<sup>th</sup> grades), the highest number of students reside in the Sugar Creek school boundary, while the fewest number of students reside in the Mary Mae Jones boundary (Figure 31).

At the high school level (9-12<sup>th</sup> grades), the highest number of students reside in the Sugar Creek school boundary, while the fewest number of students reside in the Mary Mae Jones boundary (Figure 32).



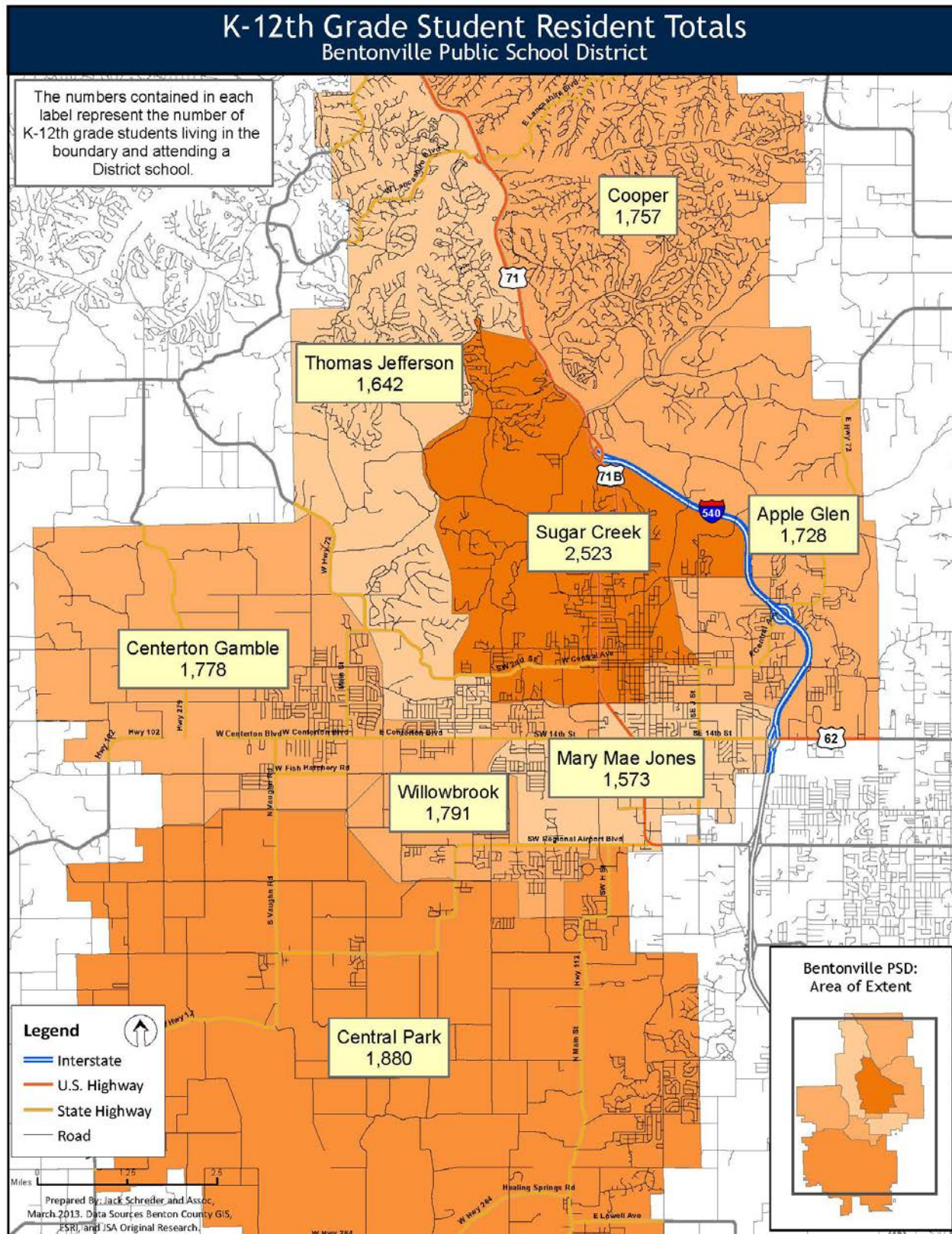
Figure 28. 2012-13 K-12<sup>th</sup> Grade Student Resident Totals



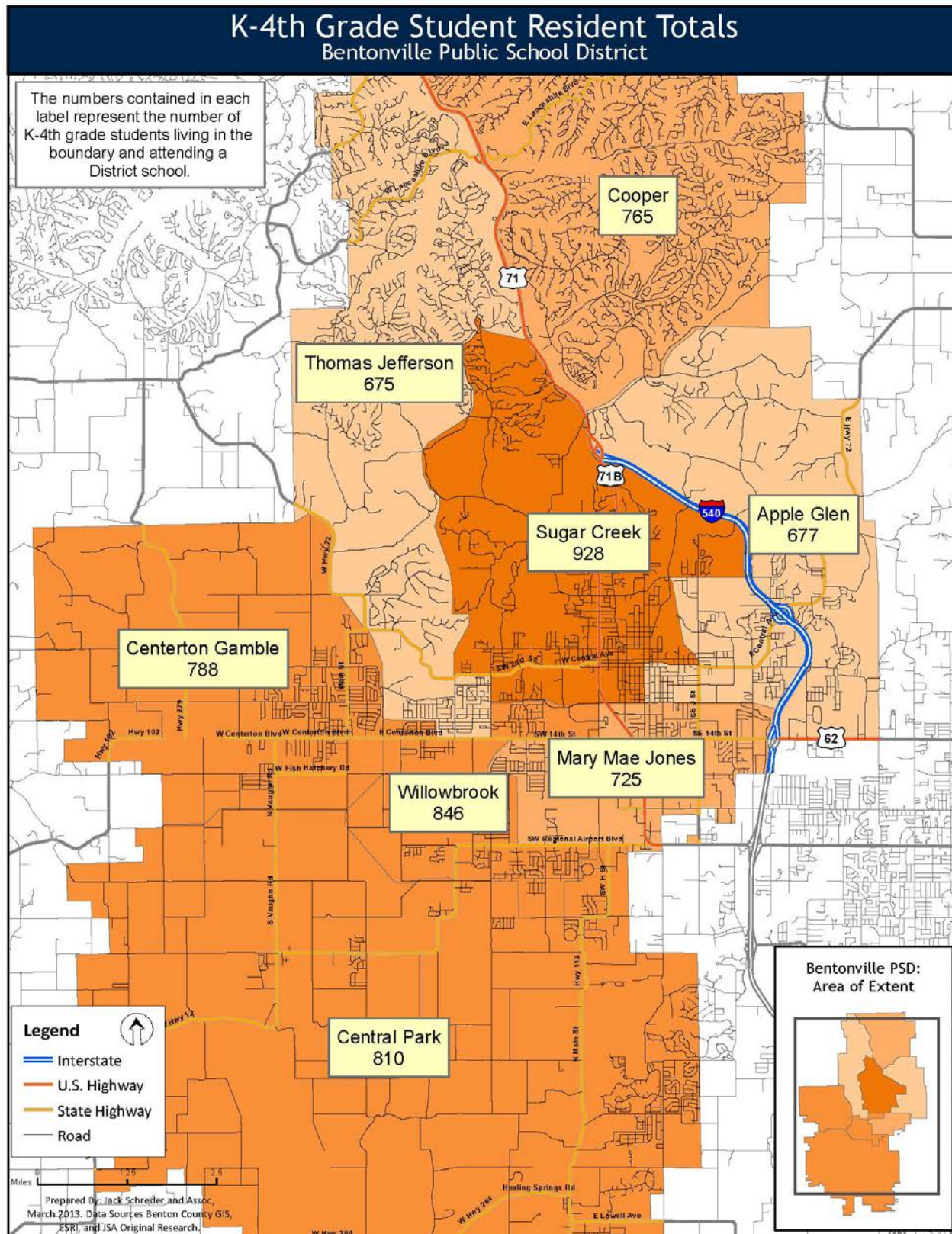
Figure 29. 2012-13 K-4<sup>th</sup> Grade Student Resident Totals



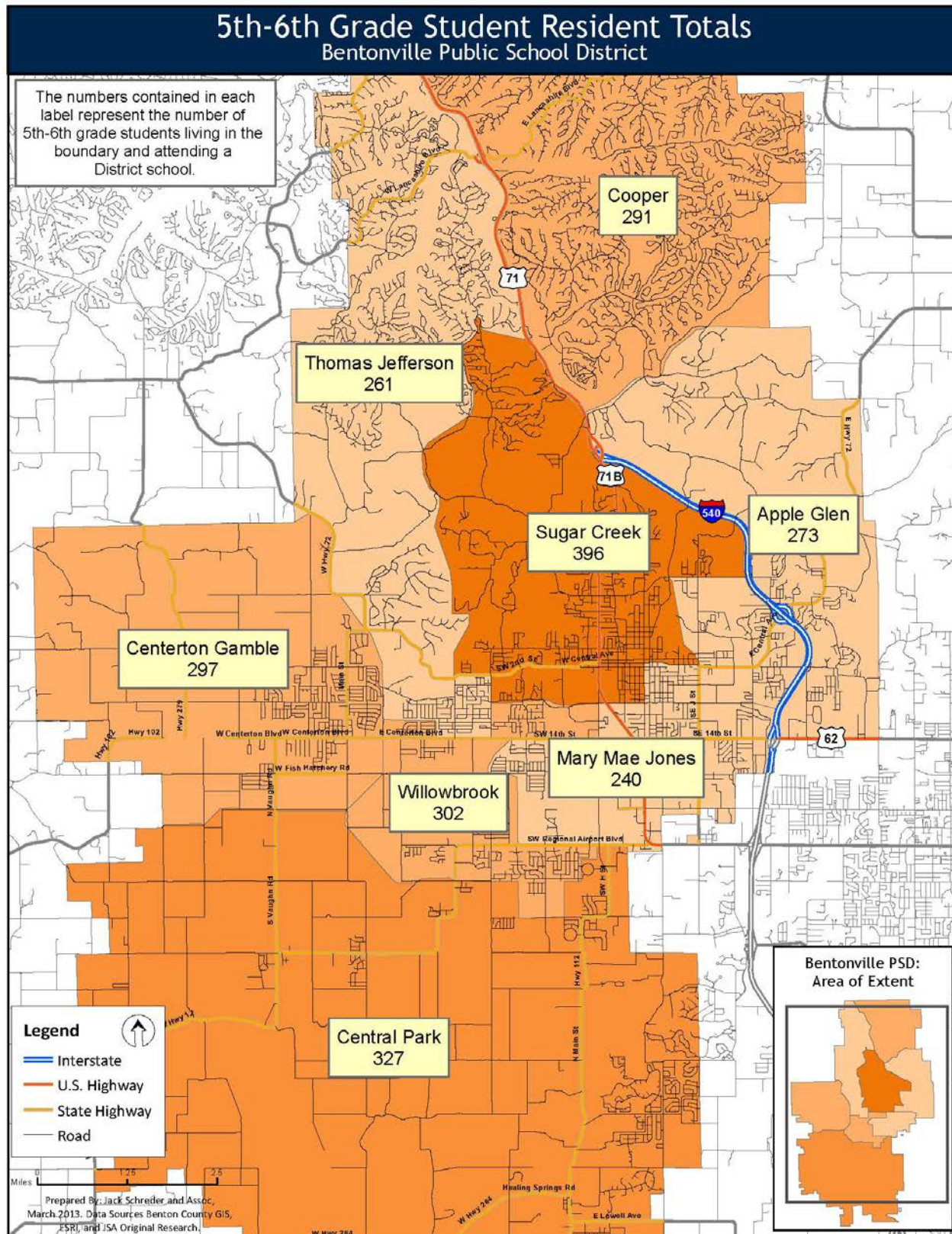
Figure 30. 2012-13 5<sup>th</sup> -6<sup>th</sup> Grade Student Resident Totals



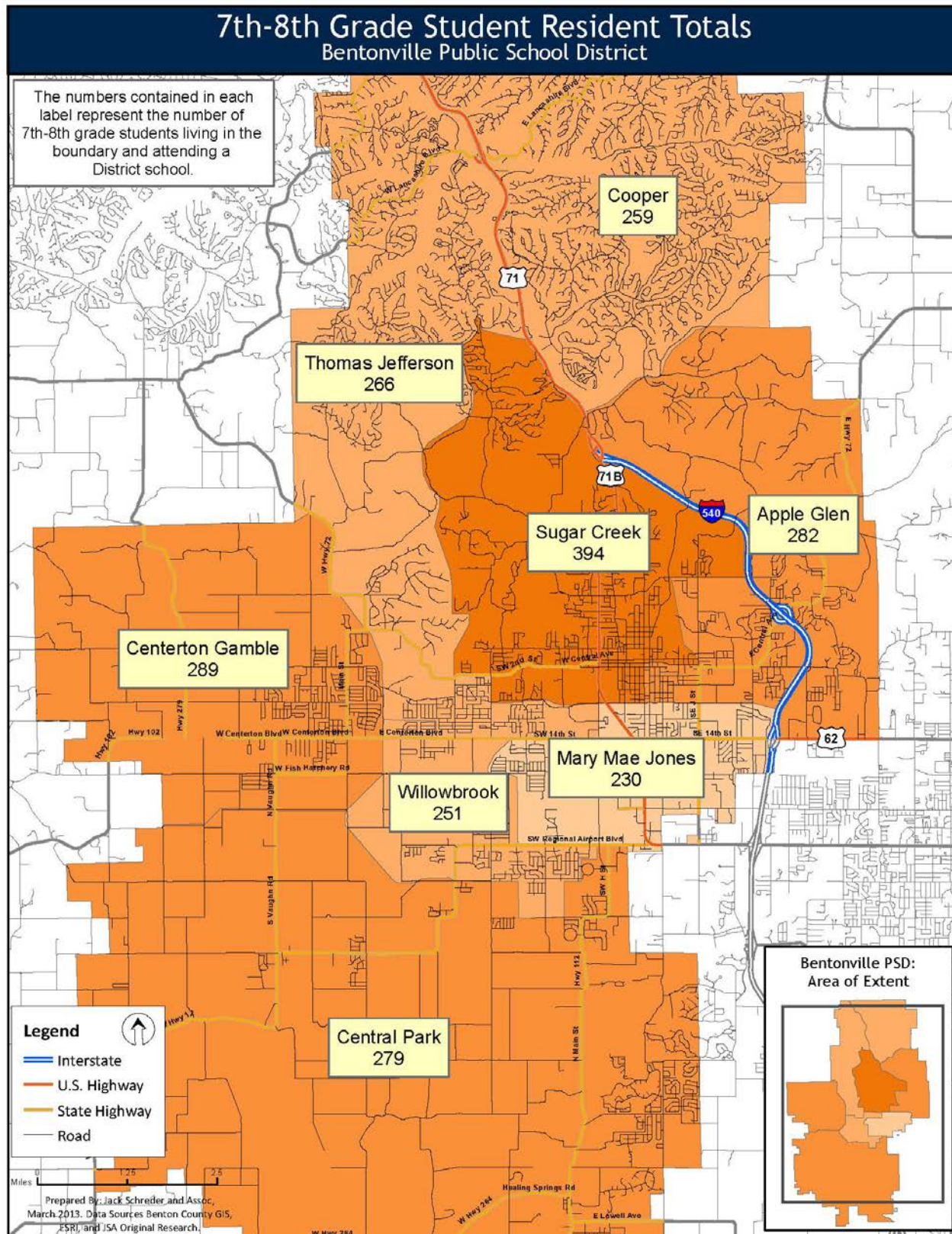
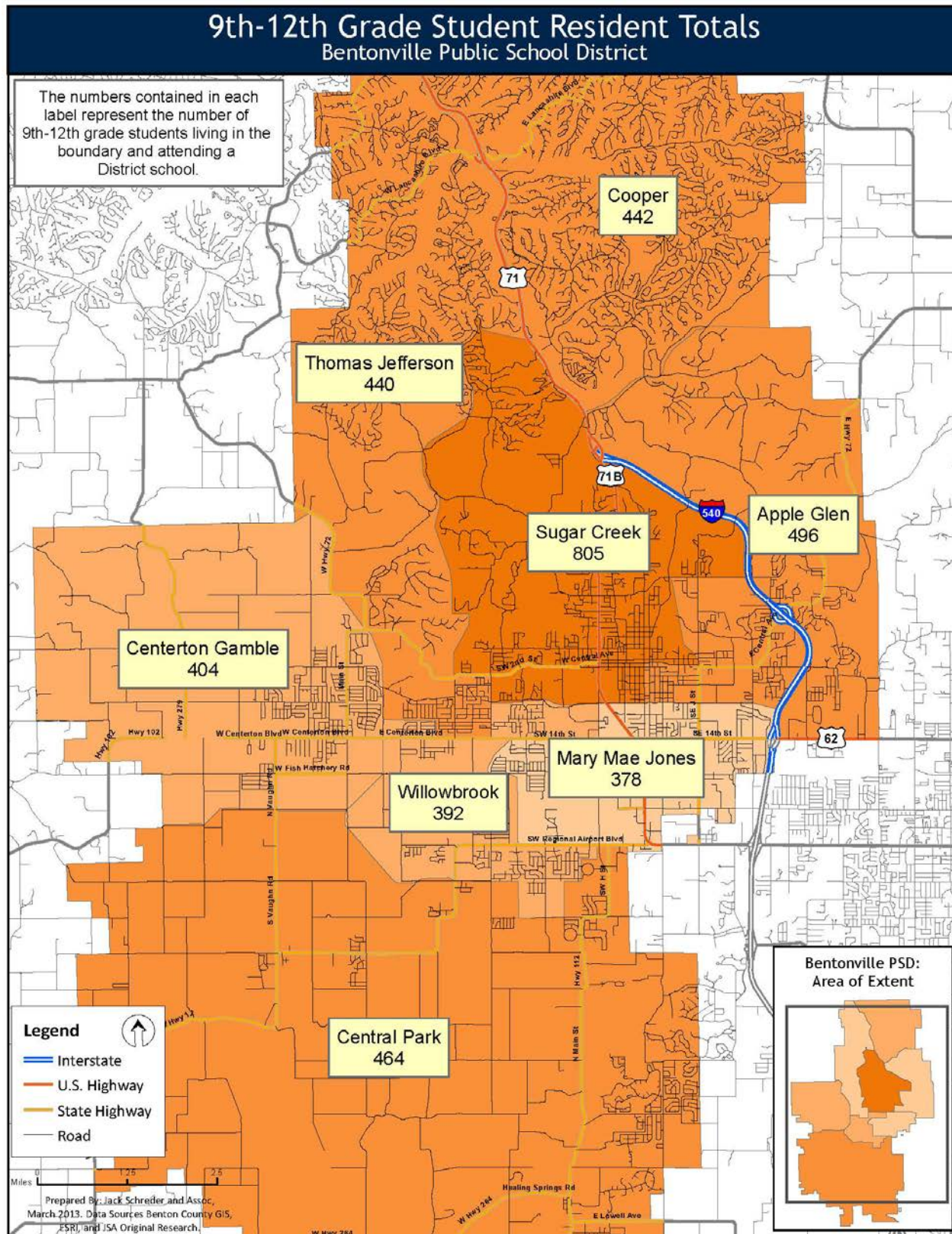
Figure 31. 2012-13 7<sup>th</sup>-8<sup>th</sup> Grade Student Resident Totals



Figure 32. 2010-11 9<sup>th</sup>-12<sup>th</sup> Grade Student Resident Totals



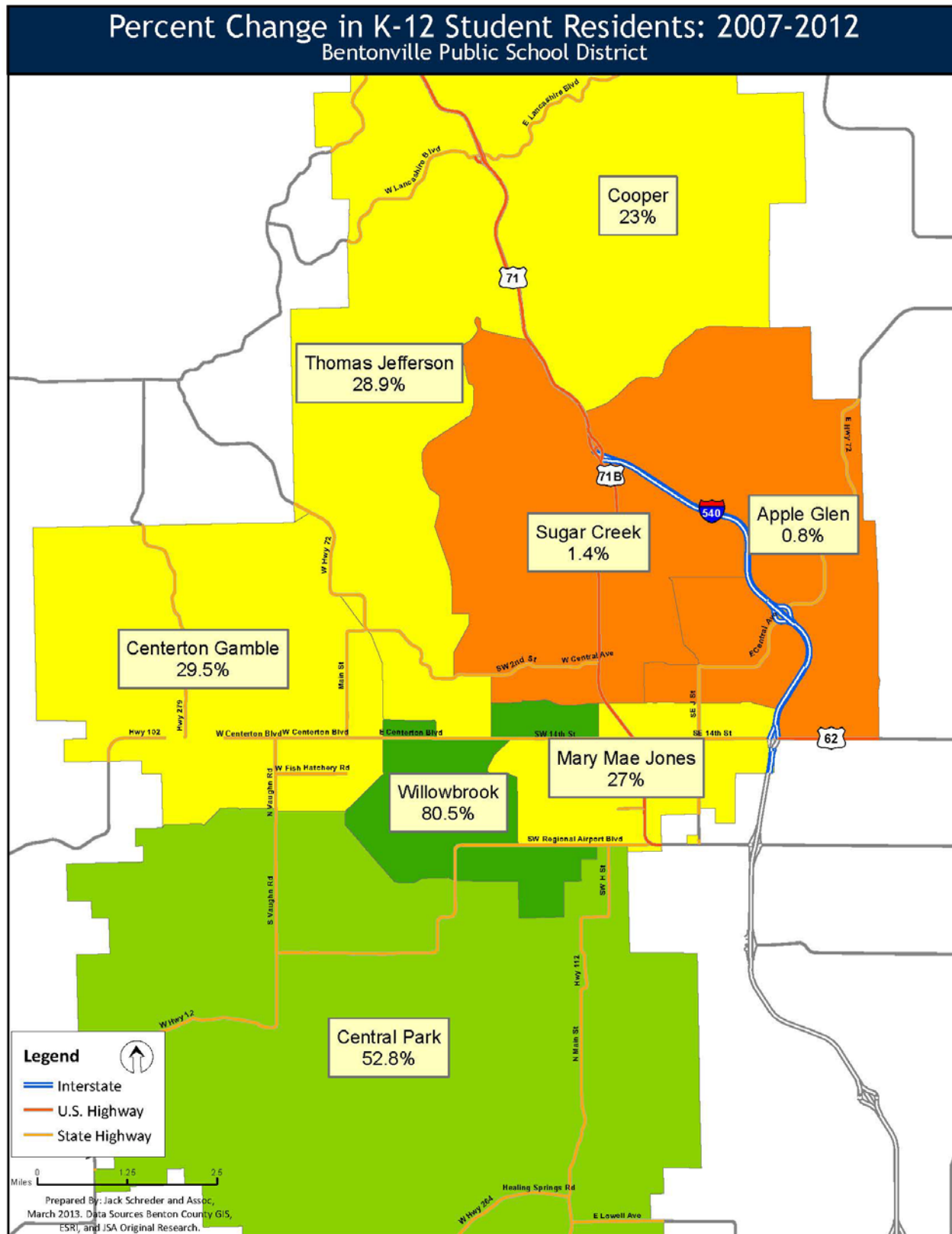
**Historical Student Residents**

Schreder & Associates compiled historical student residents by elementary school boundary (Table 7). Apple Glen experienced the smallest increase of student residents (+13 or 0.8%) while Willowbrook experienced the largest gain of student residents (+799 or 80.5%) from 2007-08 to 2012-13. Figure 33 demonstrates the percentage of increase in student residents by boundary.

**Table 7. Historical Student Residents by School Boundary**

<b>School Boundary</b>	<b>07-08</b>	<b>08-09</b>	<b>09-10</b>	<b>10-11</b>	<b>11-12</b>	<b>12-13</b>	<b>% Change</b>
Apple Glen	1,715	1,680	1,693	1,717	1,722	1,728	<b>0.8%</b>
Centerton Gamble	1,373	1,459	1,565	1,660	1,720	1,778	<b>29.5%</b>
Central Park	1,230	1,410	1,526	1,639	1,730	1,880	<b>52.8%</b>
Cooper	1,428	1,538	1,617	1,603	1,674	1,757	<b>23.0%</b>
Mary Mae Jones	1,239	1,235	1,284	1,363	1,457	1,573	<b>27.0%</b>
Sugar Creek	2,488	2,486	2,503	2,473	2,514	2,523	<b>1.4%</b>
Thomas Jefferson	1,274	1,350	1,377	1,414	1,515	1,642	<b>28.9%</b>
Willowbrook	992	1,155	1,264	1,475	1,581	1,791	<b>80.5%</b>
Out of District	192	188	218	192	183	201	<b>4.7%</b>
<b>Total</b>	<b>11,931</b>	<b>12,501</b>	<b>13,047</b>	<b>13,536</b>	<b>14,096</b>	<b>14,873</b>	<b>24.7%</b>

Figure 33. Percent Change in Student Residents, 2007-2012



**Attendance Matrices**

An important factor in analyzing the BPSD student population is determining how well each school is serving its neighborhood population. Attendance Matrices have been included to provide a better understanding of where students reside versus where they attend school. The tables on the following page compare the 2012-13 BPSD students by their school of residence versus their school of attendance<sup>10</sup>.

Tables 8-11 are meant to be read from top to bottom, then right to left. For example, Table 8 indicates that there are 11 K-4<sup>th</sup> grade students residing in Cooper Elementary School boundary, but attending Apple Glen Elementary School; alternatively, there 75 K-4<sup>th</sup> grade students residing in the Apple Glen Elementary School boundary, but attending Sugar Creek Elementary School.

This detailed analysis demonstrates the BPSD is experiencing high rates of in-migration at all schools with the exception of Centerton Gamble and Cooper Elementary Schools. In-migration refers to students attending a school but not residing in its zone. Out-migration refers to students leaving their school zone to attend a school in another zone. The BPSD is also experiencing high rates of out-migration at all schools with the exception of Centerton Gamble and Cooper Elementary Schools.

***Elementary School Attendance Matrix***

Table 8 demonstrates the rates of K-4 in-migration; from 3.05% at Cooper to 51.07% at Thomas Jefferson (in other words, 51.07% of Thomas Jefferson's enrollment is comprised of students not residing within the Thomas Jefferson boundary).

Likewise, the matrix also demonstrates the rates of K-4 out-migration; from 7.06% at Cooper to 29.63% at Thomas Jefferson (in other words, 29.63% of the K-4 students residing in the Thomas Jefferson boundary attend a school other than Thomas Jefferson).

---

<sup>10</sup> These student totals were derived from the geocoded 2012 student list and therefore may not match the 2012-13 BPSD enrollment data totals.

Table 8. Elementary Attendance Matrix

School of Attendance	School of Residence										
	Apple Glen	Centerton Gamble	Central Park	Cooper	Mary Mae Jones	Sugar Creek	Thomas Jefferson	Willowbrook	Other School District	Total Attending	
	Apple Glen	434	6	4	11	109	9	4	1	11	589
	Centerton Gamble	-	574	-	2	1	3	13	2	4	599
	Central Park	3	76	572	3	9	8	12	28	14	725
	Cooper	1	2	1	636	1	4	11	-	-	656
	Elm Tree	4	105	12	4	50	169	141	135	8	628
	Mary Mae Jones	11	5	6	7	437	40	11	117	12	646
	RE Baker	133	5	57	71	49	215	60	9	4	603
	Sugar Creek	75	7	12	11	49	316	86	29	4	589
	Thomas Jefferson	12	3	8	19	15	160	274	64	5	560
	Willowbrook	4	5	138	1	5	4	63	461	12	693
Total Residing		677	788	810	765	725	928	675	846	74	6,288

Outflow to Other AA	106	104	169	54	189	228	200	241
Attending NTES	137	110	69	75	99	384	201	144
Inflow from Other AA	144	21	139	20	197	269	281	220

Inflow from Other Districts	11	4	14	-	12	4	5	12
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% In-Migration	26.32%	4.17%	21.10%	3.05%	32.35%	46.35%	51.07%	33.48%
% Out-Migration	15.66%	13.20%	20.86%	7.06%	26.07%	24.57%	29.63%	28.49%

**Middle School Attendance Matrix**

Table 9 demonstrates the rates of 5-6 in-migration; from 3.5% at Ruth Barker Middle School to 4.7% at Bright Field Middle School (in other words, 4.7% of Bright Field enrollment consists of students not residing in the Bright Field school boundary).

Likewise, the matrix also demonstrates rates of 5-6 out-migration; from 2.7% at Bright Field Middle School to 6.7% at Ruth Barker Middle School (in other words, 6.7% of the 5-6 students residing in the Ruth Barker boundary attend a school other than Ruth Barker).

**Table 9. Middle School Attendance Matrix**

School of Attendance	School of Residence						
		Ardis Ann	Bright Field	Old High	Ruth Barker	Other Districts	Total Attending
	School of Attendance						
	Ardis Ann	593	7	9	13	3	625
	Bright Field	9	538	8	10	9	574
	Old High	11	3	605	16	4	639
	Ruth Barker	8	5	7	544	12	576
	Total Residing	621	553	629	583	28	2,414
Outflow to Other AA		28	15	24	39		
Inflow from Other AA		29	27	30	20		
Inflow from Other Districts		3	9	4	12		
% In-Migration		4.6%	4.7%	4.7%	3.5%		
% Out-Migration		4.5%	2.7%	3.8%	6.7%		

**Junior High School Attendance Matrix**

Table 10 demonstrates the rates of 7-8<sup>th</sup> grade in-migration; from 41.9% at Lincoln Junior High School to 54.6% at Washington Junior High School (in other words, 54.6% of Washington's enrollment consists of students not residing in the Washington school boundary).

Likewise, the matrix also demonstrates rates of 7-8<sup>th</sup> grade out-migration; from 20.3% at Lincoln Junior High School to 38.1% at Washington Junior High School (in other words, 38.1% of the 7-8<sup>th</sup> grade students residing in the Washington Junior High School boundary attend a school other than Washington Junior High School).

**Table 10. Junior High School Attendance Matrix**

School of Attendance	School of Residence					
		Lincoln	Washington	J William Fulbright	Other Districts	Total Attending
	School of Attendance					
	Lincoln	657	302	179	10	1,148
	Washington	167	490	456	28	1,141
	Total Residing	824	792	635	38	2,289

Outflow to Other AA	167	302
Inflow from Other AA	481	623

Inflow from Other Districts	10	28
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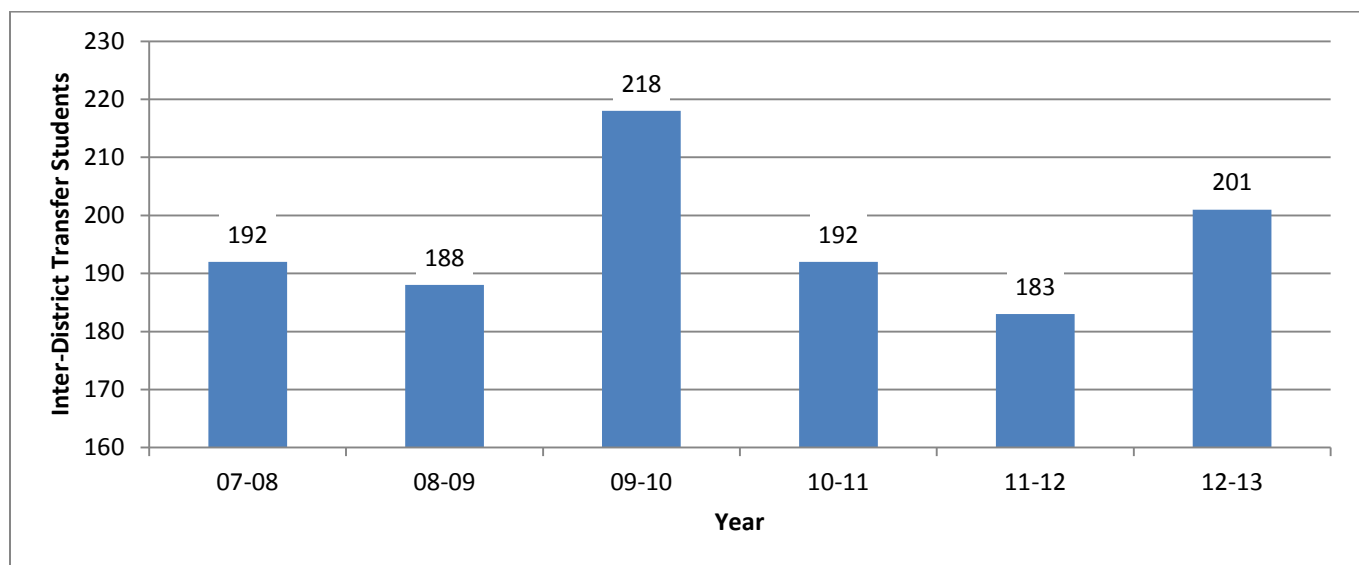
% In-Migration	41.9%	54.6%
% Out-Migration	20.3%	38.1%

**Inter-district Transfers**

Inter-district transfers were isolated and measured for purposes of evaluating the impact to District enrollments and District facilities. Currently, there are 201 inter-district students enrolled in BPSD representing just 1.4% of the District's 2012-13 K-12<sup>th</sup> grade enrollments. Table 11 provides the inter-district transfer students by grade. Figure 34 provides the historical inter-district transfer students.

**Table 11. Current Inter-district Transfer Students by Grade**

Grade	2012-13 Inter-district Students
K	14
1	18
2	18
3	12
4	13
5	18
6	9
7	18
8	21
9	20
10	15
11	14
12	11
<b>Total</b>	<b>201</b>

**Figure 34. Historical Inter-District Transfer Students**

## SECTION G: ENROLLMENT PROJECTIONS

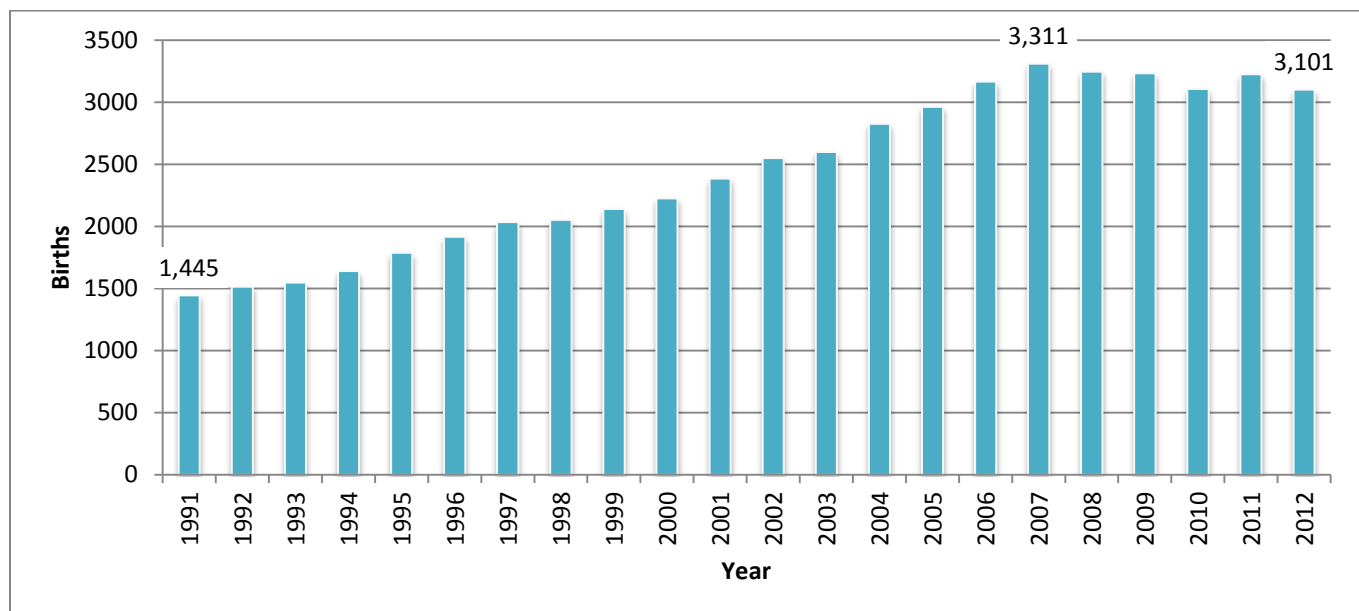
To effectively plan for facilities, boundary changes, or policy changes for student enrollments, school district administrators need 10-year enrollment projections. These projections are for long-range facility planning and are not meant to be utilized for short-term budgeting and staffing.

### Historical and Projected Birth Data

Close tracking of local births is crucial for projecting future kindergarten students. Births are the single best predictor of the number of future kindergarten students to be housed by the District. Birth data is collected for the Bentonville Public School District by the Arkansas Department of Health using Zip Code boundaries<sup>11</sup> and is utilized in projecting future kindergarten class sizes. Although not all Zip Code births ultimately attend BPSD schools, there has been a historical link between the live births in the area, and the subsequent kindergarten enrollment.

Benton County births increased every year from 1991 to 2007, at which time births began to decline slightly and stabilize (Figure 35).

**Figure 35. Benton County Births**



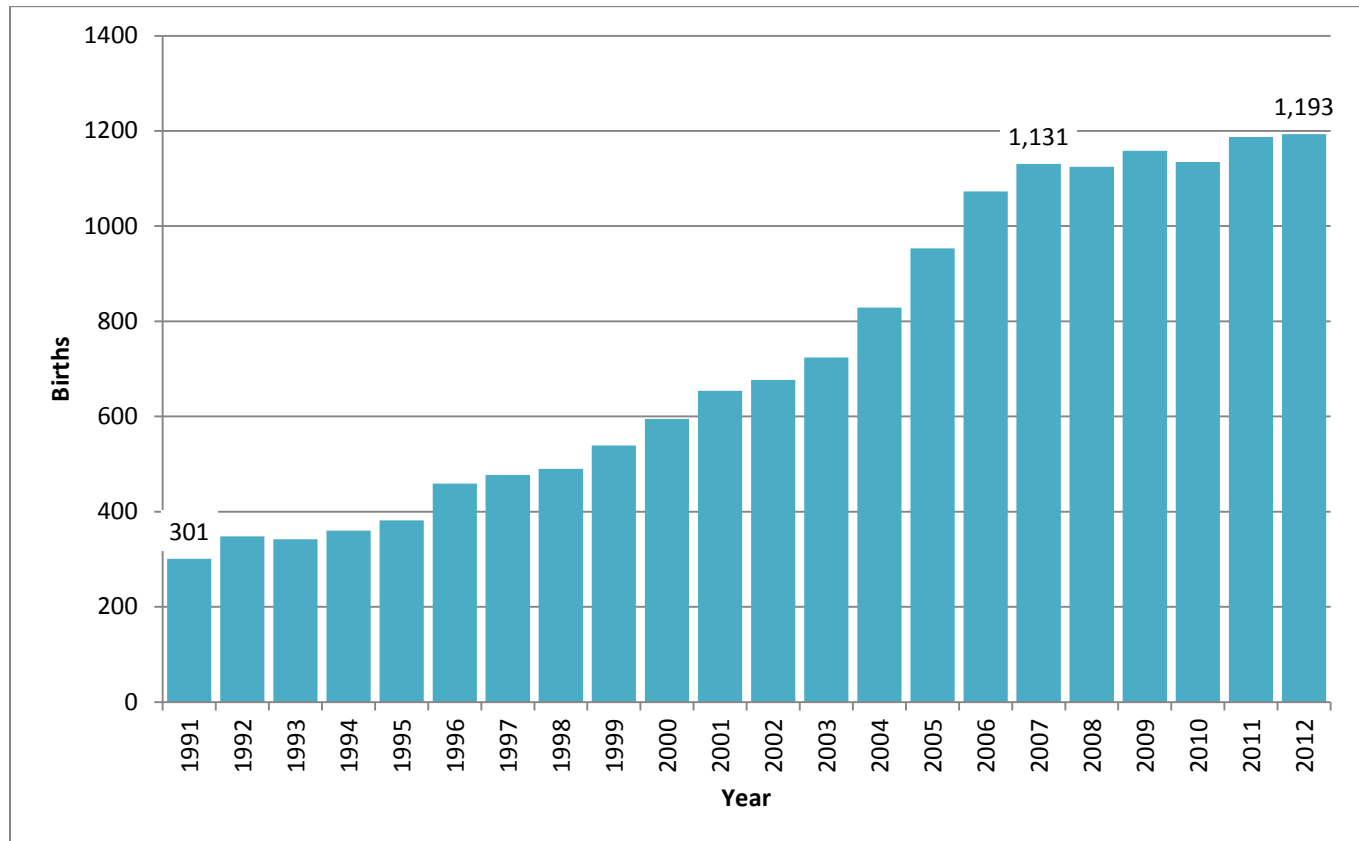
Source: Arkansas Department of Health

<sup>11</sup> The consultant utilized Zip Codes 72712, 72714, 72715, 72718, and 72719.



Births in the Bentonville Public School District increased significantly from 1991 to 2007, stabilized for a few years, and then increased in 2011 and again in 2012. The birth trend in the BPSD area is reflective of the impact of the economic downturn that began in December 2007, and the period of economic recovery that has begun in recent years. Figure 36 demonstrates the total number of births between 1991 and 2012 in Bentonville Public School District.

**Figure 36. Births in BPSD**



Source: Arkansas Department of Health

Figure 37 provides a map of the Zip Code boundaries utilized to collect the birth data. Figure 38 provides the historical births by Zip Code. Births in Bentonville have increased nearly every year since 1991, and increased significantly in 2012. Births in Bella Vista increased from 1991 to 2006 and have remained stable or declined since that time. Births in Cave Springs and Centerton increased from 1991 to 2006 and have remained stable since that time.

Figure 37. Zip Codes Utilized to Capture Birth Data

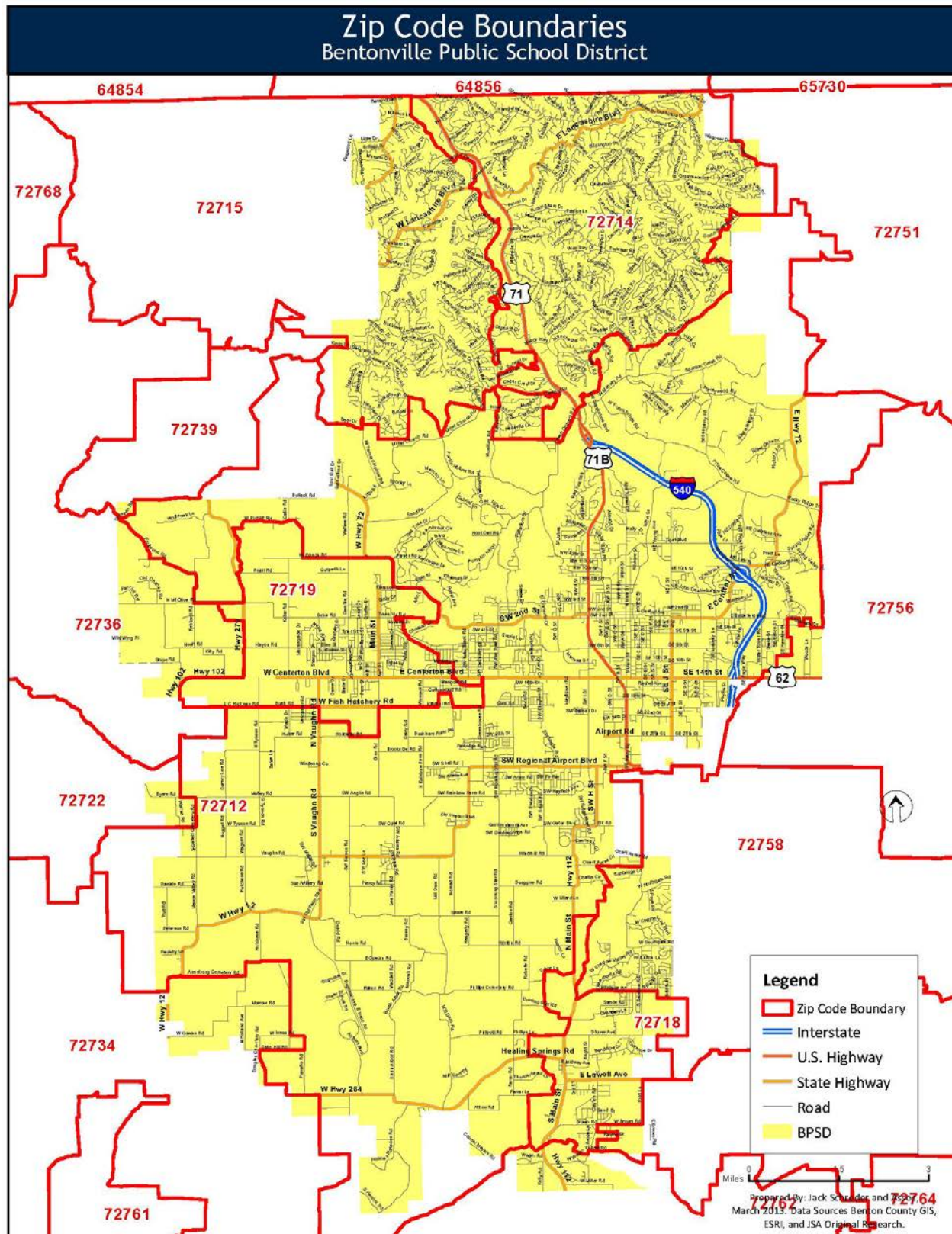
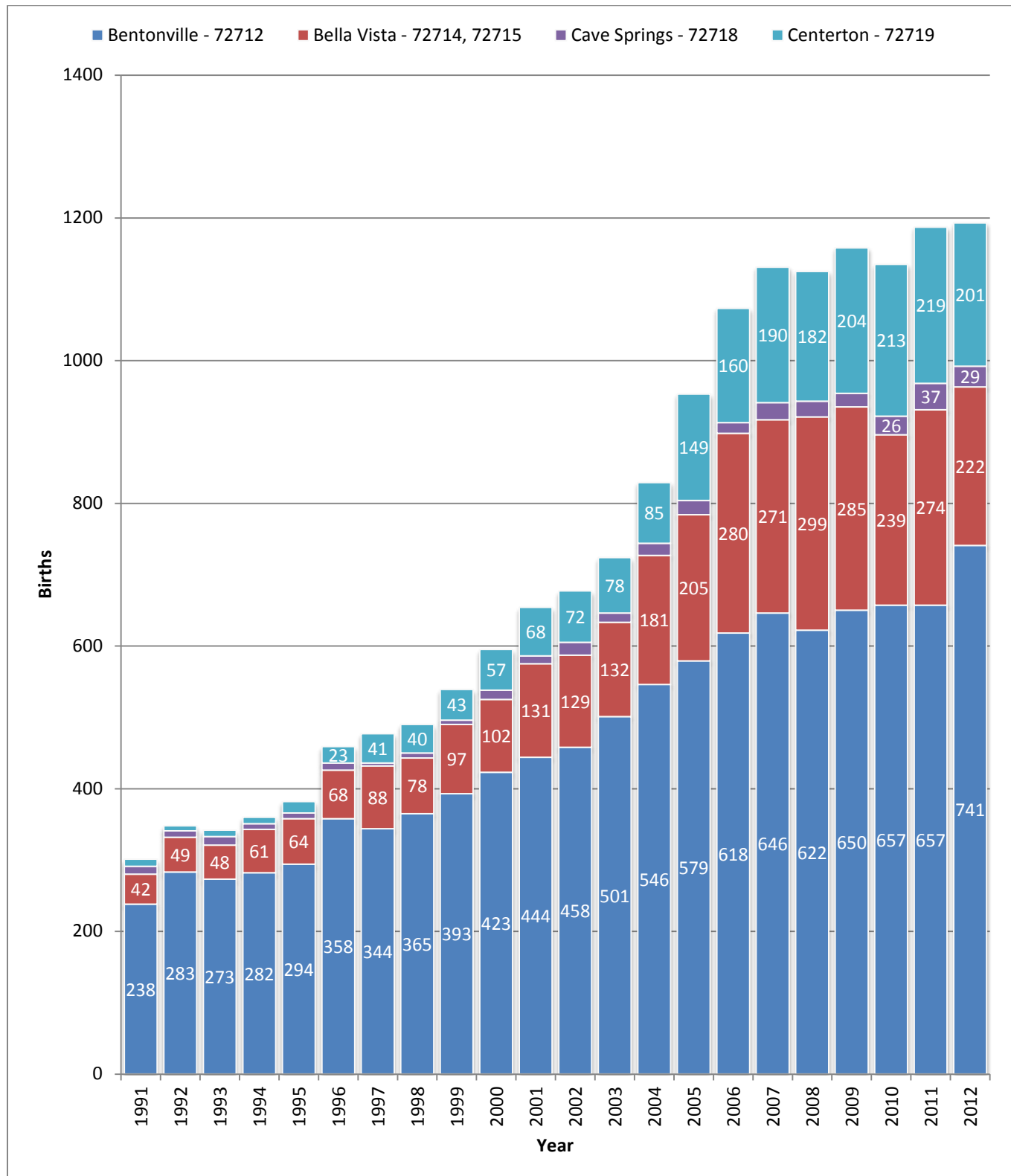
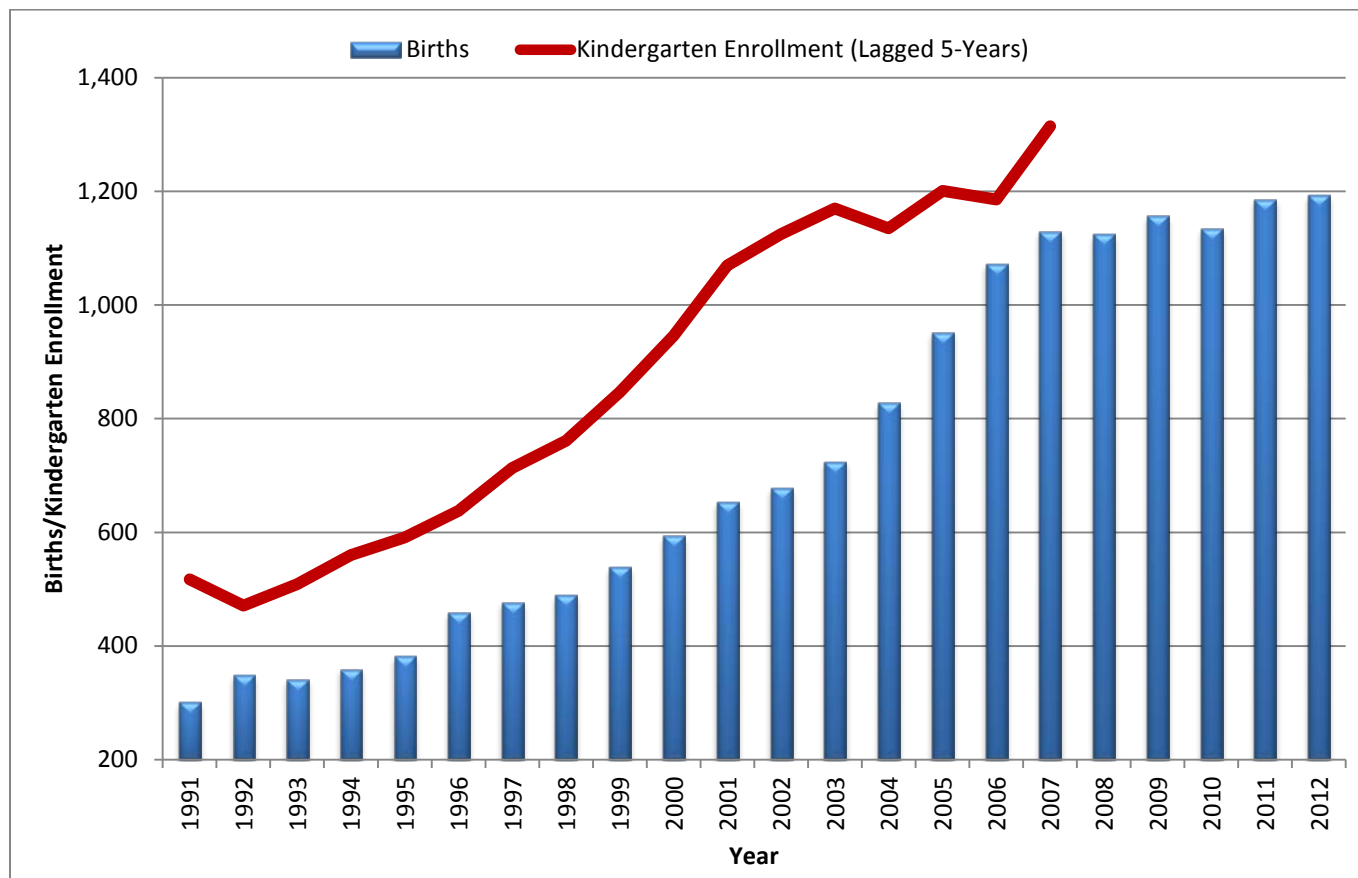


Figure 38. Births by Area



The number of children born to parents who live in BPSD is significantly correlated with the size of the kindergarten class five years later. Therefore, we use recent birth data as the most important factor when projecting future kindergarten students for BPSD to house. Figure 39 demonstrates this relationship.

**Figure 39. Births Compared to Kindergarten Enrollments (Lagged 5 Years)**



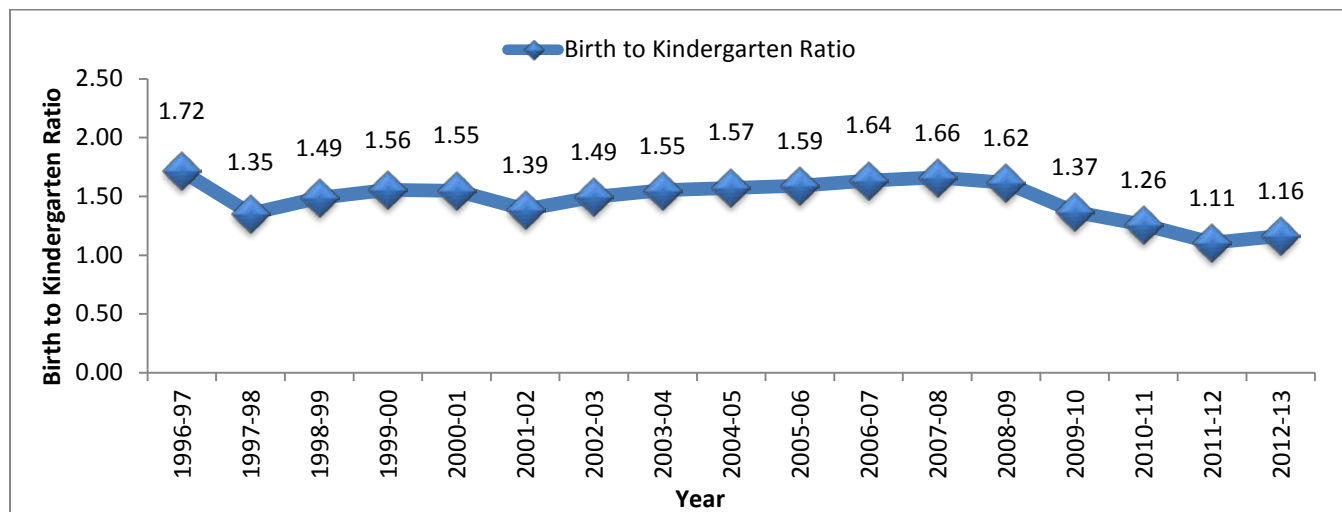
There is rarely a one-to-one correspondence between births and subsequent kindergarten enrollments. Table 12 and Figure 40 demonstrate the BPSD kindergarten-birth ratio. It provides the percentage of births that result in kindergarten enrollments in the District five years later. It is a net rate, because children move both into and out of the District.

The ratio of BPSD births to BPSD kindergarten enrollments declined from 2007 to 2011 due to the economic downturn yet remained over 1:1 due to the lag effect of in-migration of families with children to the District. In 2012 the kindergarten to birth ratio increased to 1.16, meaning that for every 100 births in 2007, 116 children enrolled in BPSD kindergarten classes five years later (in 2012).

Table 12. Kindergarten Enrollment to Live Birth Ratio

Birth Year	Live Births	Increase	Kindergarten Year	Kindergarten Enrollment	Ratio of Live Births as Students in Kindergarten Enrollment
1991	301		1996-97	517	1.72
1992	348	15.6%	1997-98	471	1.35
1993	342	-1.7%	1998-99	509	1.49
1994	360	5.3%	1999-00	560	1.56
1995	382	6.1%	2000-01	591	1.55
1996	459	20.2%	2001-02	638	1.39
1997	477	3.9%	2002-03	713	1.49
1998	490	2.7%	2003-04	761	1.55
1999	539	10.0%	2004-05	847	1.57
2000	595	10.4%	2005-06	946	1.59
2001	654	9.9%	2006-07	1070	1.64
2002	677	3.5%	2007-08	1125	1.66
2003	724	6.9%	2008-09	1170	1.62
2004	829	14.5%	2009-10	1135	1.37
2005	953	15.0%	2010-11	1201	1.26
2006	1,073	12.6%	2011-12	1186	1.11
2007	1,131	5.4%	2012-13	1315	1.16
2008	1,125	-0.5%			
2009	1,158	2.9%			
2010	1,135	-2.0%			
2011	1,187	4.6%			
2012	1,193	0.5%			

Figure 40. Kindergarten Enrollment to Live Birth Ratio



### **Student Migration Rates**

The methods of projecting student enrollment in grades 1<sup>st</sup>-8<sup>th</sup> involve the use of student migration rates. A migration rate is simply how a given cohort changes in size as they progress to the next grade level.

- Positive migration occurs when a District gains students from one grade into the next grade the following year. For example, a cohort of 100 1<sup>st</sup> grade students becomes a cohort of 125 2<sup>nd</sup> grade students the following year. In this case, 25 new students enrolled in the District who were not enrolled the prior year<sup>12</sup>.
  - Positive migration could be indicative of numerous influences, including the in-migration of families with small children to the District, private to public school transfers, new residential construction, District policy changes, school closures in adjacent Districts, etc.
- Negative migration occurs when a District loses students from one grade into the next grade the following year. For example, a cohort of 100 1<sup>st</sup> grade students becomes a cohort of 75 2<sup>nd</sup> grade students the following year. In this case, 25 new students who were present the prior year are not enrolled in the current year.
  - These losses could be indicative of numerous influences including the closure of schools, District policy changes toward interdistrict transfer students, losses to private schools or other Districts, out-migration of families due to economic decline, etc.

As an example, in 2008-09 the District's class of 3rd graders was 1,094. A year later, this class became a fourth grade class of 1,106. Using this example, the rate of migration is calculated in the following way:

$$(1,106-1,094)/1,094 = +1.1\%$$

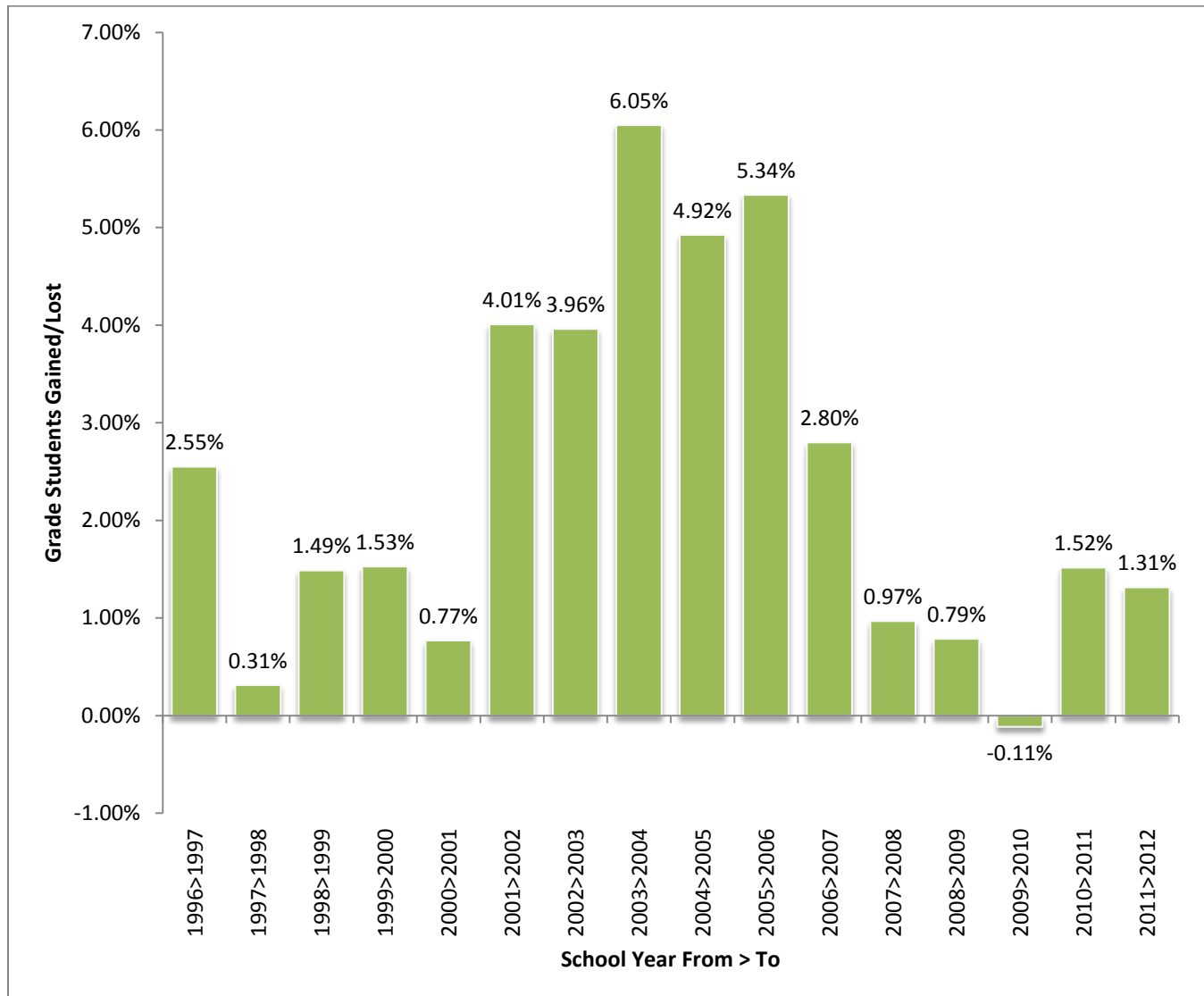
The +1.1% increase is a measure of the likelihood our third grade class will become larger or smaller as the class passes into the fourth grade the following year. Migration rates are calculated for all grade levels by year and then analyzed by the current grade level configuration.

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<sup>12</sup> This is a net measurement.

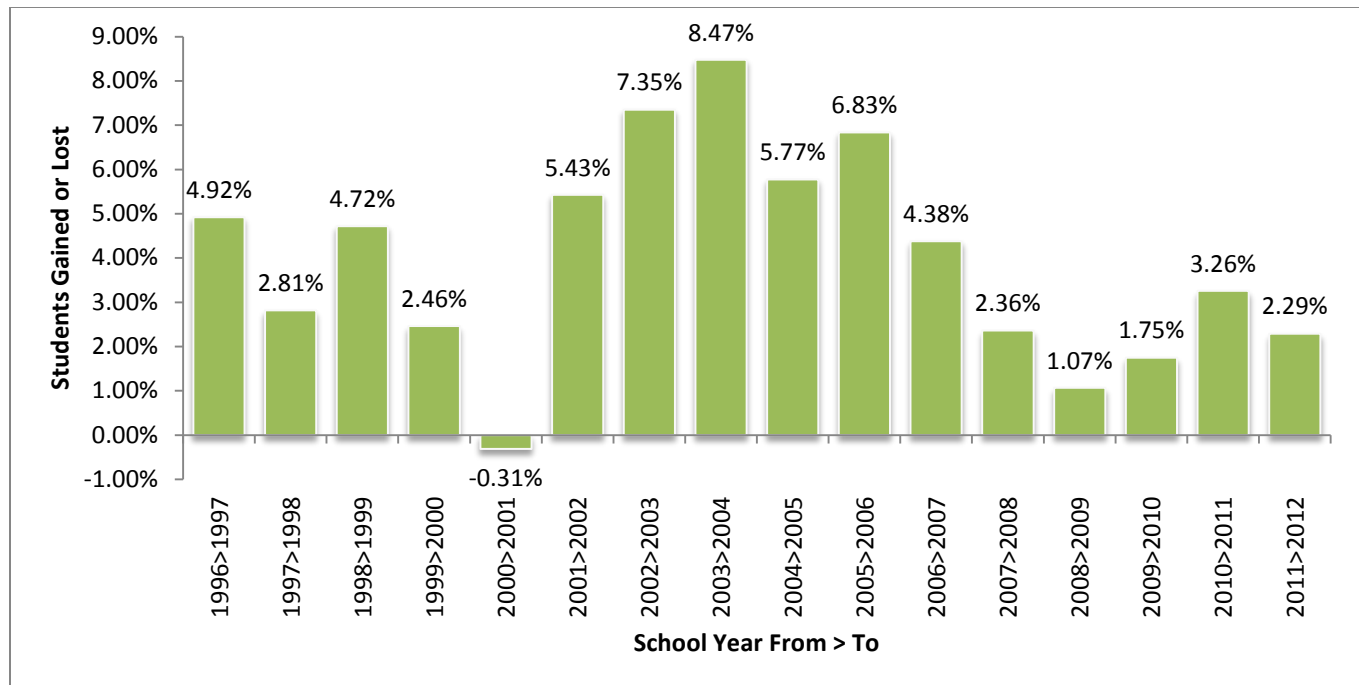
**BPSD Student Migration**

BPSD experienced significant positive migration from 2001 to 2006, during the period of economic growth and rapid residential development. During the economic downturn, which began in December 2007, migration remained positive overall, though at much lower levels. In 2011 and 2012, migration increased as the economy began to recover (Figure 41).

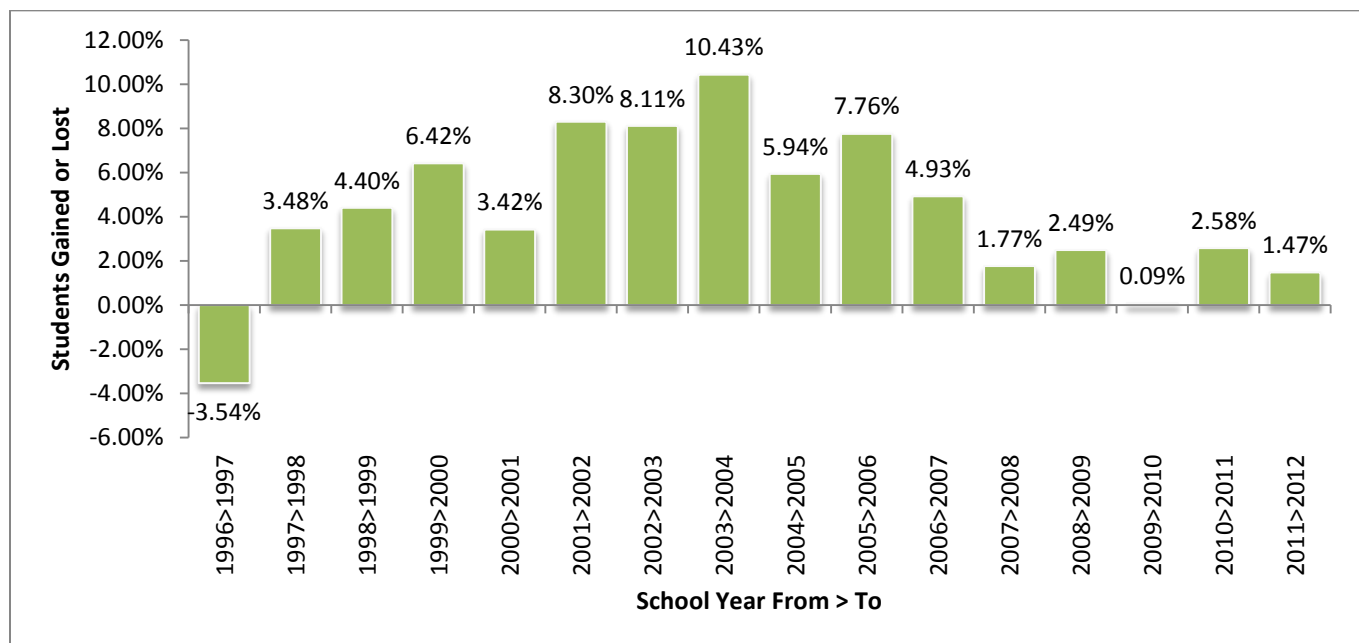
**Figure 41. Migration Grades K-11 > Grades 1-12**

A closer examination of BPSD migration by grade level grouping provides additional insight. The same migration pattern is evident during, and following, the economic boom, recession, and subsequent recovery (Figures 42 through 45).

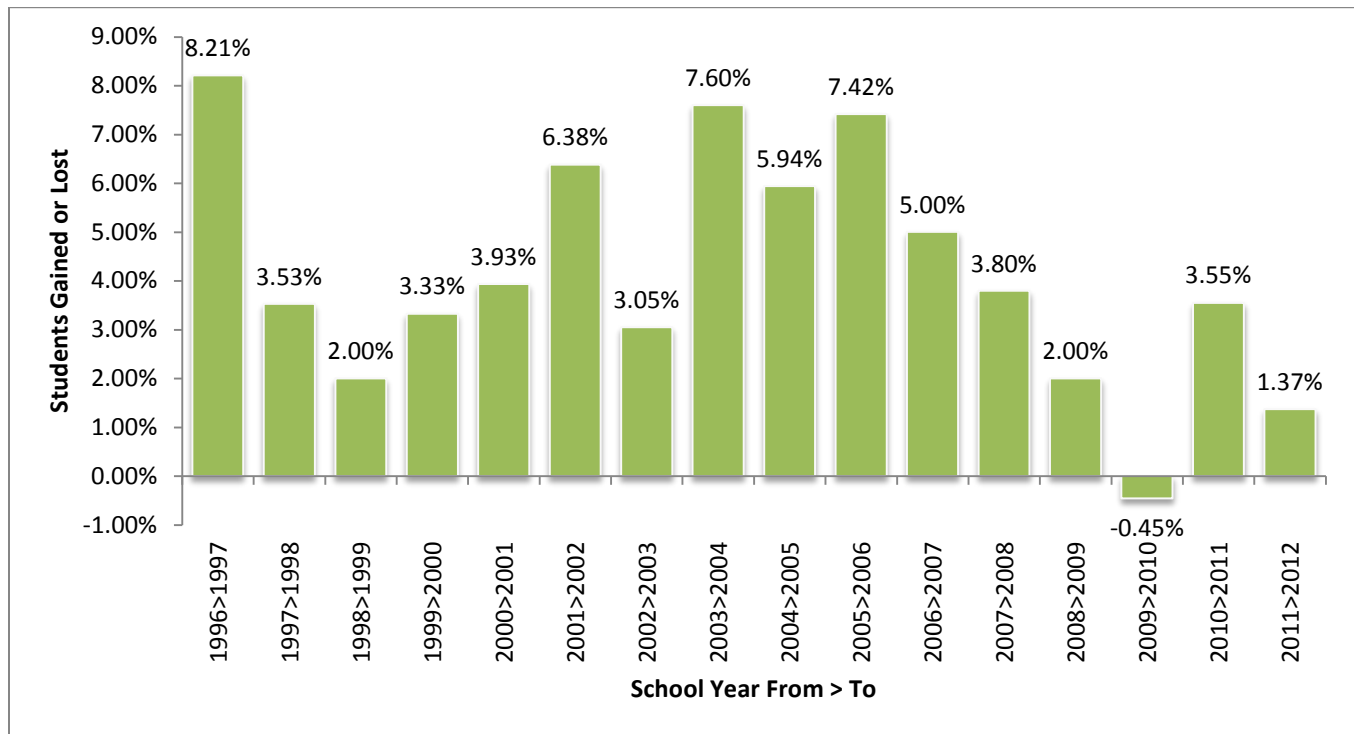
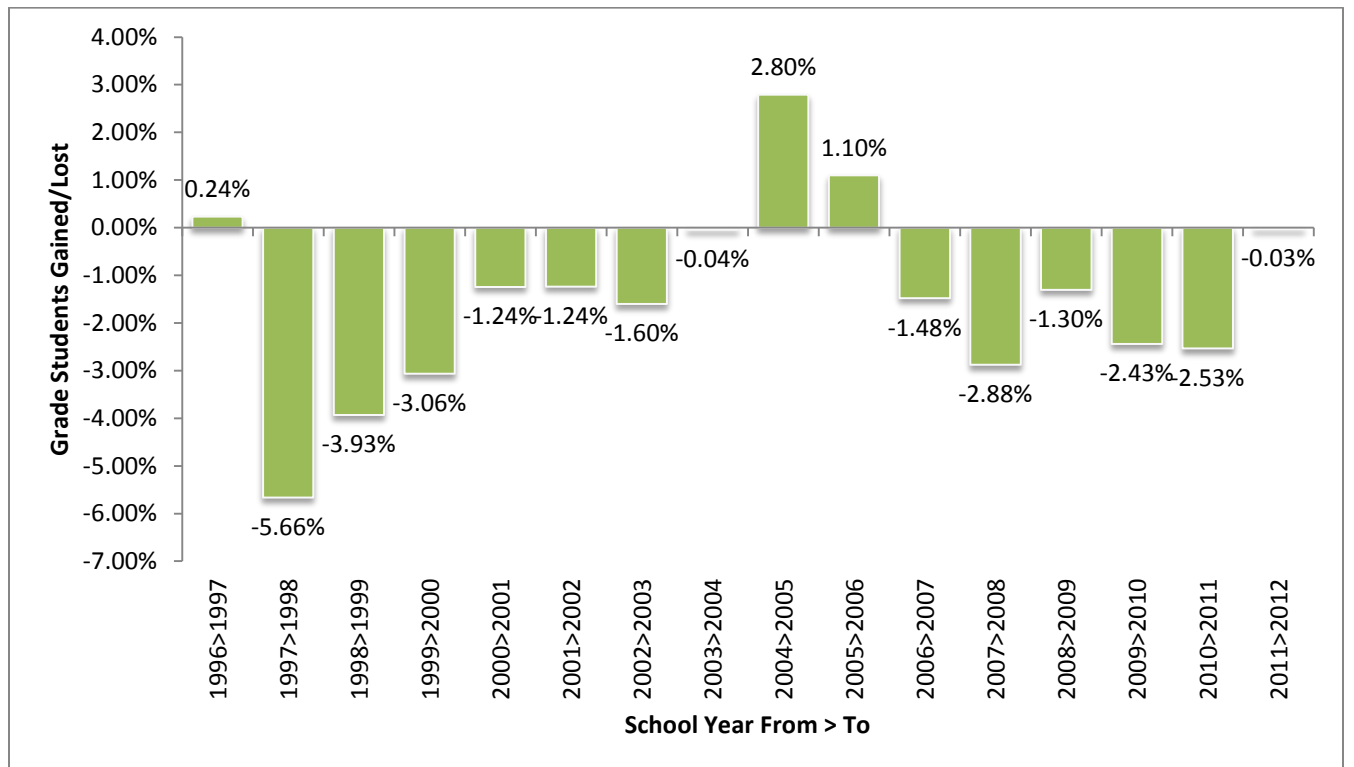
**Figure 42. Migration Grades K-3 > Grades 1-4**



**Figure 43. Migration Grades 4-5 > 5-6**





**Figure 44. Migration Grades 6-7 > 7-8****Figure 45. Migration Grades 8-11 > 9-12**

**Future Enrollment**

One benefit of tracking district demographic and enrollment trends is the ability to utilize the trend data to project future enrollment. Predicting future enrollment is an important factor affecting many school processes: long-range planning, budgeting, staffing, and predicting future building and capital needs. The consultant has utilized the standard cohort survival methodology to predict future enrollments. This tool allows for three projection models (2-Year Cohort, 3-Year Cohort, 5-Year Cohort) that create an anticipated range of enrollment for future years.

***Cohort Survival Methodology***

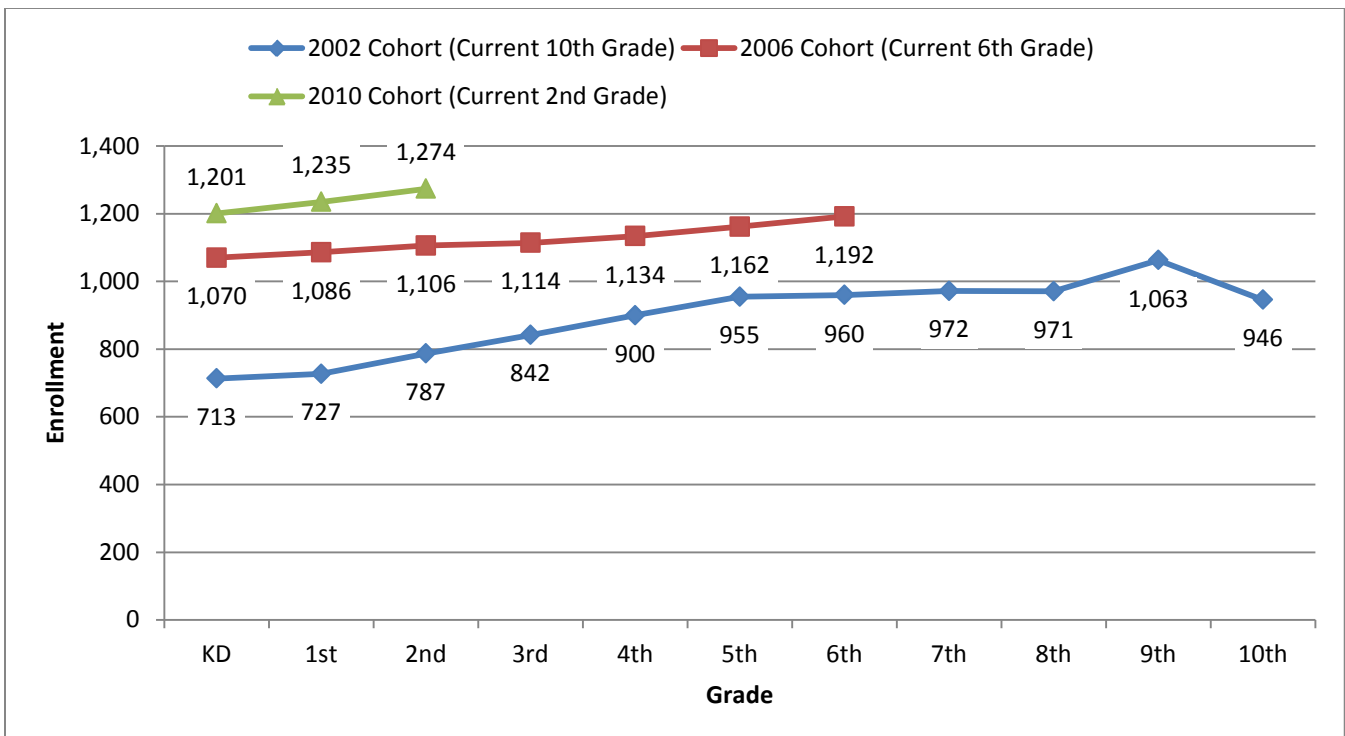
Using this method, the current student body is advanced one grade for each year of the projection. For example, year 2010 first graders become year 2011 second graders, and the following year's third graders, and so on. As a cohort moves through the grades, its total population will, most likely, change. While based on historical enrollments, the consultant adjusts the calculation for weighted student migration rates, birth rates, and residential construction patterns.

Figure 46 represents a key concept in projecting student enrollment – “cohort growth”. This graph shows current enrollment by grade level and also includes the size of the same cohort when they were kindergarteners. As depicted in the graph, BPSD classes generally increase in size as they pass from grade level to grade level. For example, the cohort that began in 2004 as a kindergarten class of 847 students is currently the District's 8<sup>th</sup> grade class of 1,132 students. Alternatively, the cohort that began in 2006 as a kindergarten class of 1,070 students is currently the District's 6<sup>th</sup> grade class of 1,192 students. When smaller cohorts are replaced with larger cohorts, and migration is stable or positive, school districts experience enrollment growth (Figure 47).

Figure 46. Cohort Growth Since Kindergarten



Figure 47. Comparison of Cohorts



To minimize the effects of exceptional years (specifically, those years during the recession in which migration dropped to much lower levels), cohort indices were calculated by averaging and weighting historical migration and removing any anomalous rates. The table below presents the indices used to project future growth from one grade level to the next. These are current values utilizing data from 2006-07 to 2012-13.

**Table 13. Cohort Indices**

Grade From > To	2006>2007	2007>2008	2008>2009	2009>2010	2010>2011	2011>2012	Low	Moderate	High
K>1	1.50%	1.07%	0.68%	2.56%	2.83%	4.05%	3.14%	3.56%	4.83%
1>2	5.21%	1.84%	1.76%	1.19%	3.26%	3.16%	2.73%	3.20%	3.88%
2>3	6.49%	2.15%	0.72%	1.47%	3.27%	-0.33%	1.22%	1.30%	2.27%
3>4	4.64%	4.60%	1.10%	1.80%	3.66%	2.27%	2.34%	2.83%	3.92%
4>5	6.11%	2.99%	3.82%	0.63%	2.47%	0.41%	1.17%	1.23%	2.39%
5>6	3.70%	0.52%	1.10%	-0.46%	2.70%	2.58%	2.13%	2.63%	3.18%
6>7	5.92%	4.46%	1.25%	-0.79%	2.77%	0.96%	1.66%	1.69%	3.31%
7>8	4.03%	3.13%	2.77%	-0.10%	4.40%	1.80%	2.99%	2.84%	3.41%
8>9	10.16%	9.55%	3.69%	9.97%	9.47%	11.96%	10.47%	11.61%	11.96%
9>10	-6.32%	-10.87%	-8.06%	-12.97%	-11.80%	-11.01%	-10.29%	-9.53%	-8.93%
10>11	-2.23%	-0.94%	1.35%	-2.16%	3.00%	2.46%	2.27%	2.68%	2.79%
11>12	-8.33%	-8.49%	-2.18%	-4.98%	-10.43%	-3.73%	-5.45%	-5.41%	-4.68%

### ***Kindergarten Projection***

One difficulty posed in using cohort survival as a projection method is estimating the size of the kindergarten class in future years. Since cohort survival cannot be calculated for the kindergarten class (no class comes before it in previous years), Zip Code births are used to estimate the kindergarten class size each year. Over the last three years, an average of 118% of births in BPSD Zip Codes (known as “live births”) have attended kindergarten in BPSD schools five years later.

Using known values for BPSD births in years 2008 through 2012, kindergarten enrollment for school years 2013-14 through 2017-18 can be estimated based upon known births based on projected kindergarten to birth ratios, calculated from historical values. Kindergarten enrollment estimations past the school year 2017-18 cannot be calculated based upon known births (these children have not yet been born). Values for these kindergarten enrollments are based upon a predicted number of children born in BPSD. Using these projection models, the kindergarten class size for 2013-14 is projected to be between 1,360 and 1,392.

***Enrollment Projections***

Three enrollment projections were prepared for BPSD: “Low”, “Most Likely”, and “High” and are provided in the Tables 14 through 16. It is critical the District continue to monitor local births, pre-kindergarten registration, actual kindergarten enrollments, and residential development and update these projections ***annually*** in order to remain proactive in planning for facilities

Based on the Most Likely projection, K-12<sup>th</sup> grade enrollments are projected to increase to 20,467 by 2022-23.

Section I provides an analysis of facility capacity compared to enrollment projections.

Table 14. Low Enrollment Projection

Grade	Actual										Projected									
	06-07	07-08	08-09	09-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23			
K	1,070	1,125	1,170	1,135	1,201	1,186	1,315	1,360	1,400	1,372	1,435	1,442	1,487	1,490	1,482	1,478	1,475			
1	1,018	1,086	1,137	1,178	1,164	1,235	1,234	1,352	1,397	1,437	1,409	1,472	1,479	1,524	1,527	1,519	1,515			
2	940	1,071	1,106	1,157	1,192	1,202	1,274	1,266	1,384	1,429	1,469	1,441	1,504	1,511	1,557	1,559	1,552			
3	926	1,001	1,094	1,114	1,174	1,231	1,198	1,288	1,281	1,399	1,443	1,483	1,456	1,518	1,526	1,571	1,573			
4	900	969	1,047	1,106	1,134	1,217	1,259	1,226	1,316	1,308	1,426	1,471	1,511	1,483	1,546	1,553	1,599			
5	865	955	998	1,087	1,113	1,162	1,222	1,272	1,239	1,329	1,322	1,440	1,484	1,524	1,497	1,559	1,567			
6	844	897	960	1,009	1,082	1,143	1,192	1,246	1,296	1,263	1,353	1,345	1,463	1,508	1,548	1,520	1,583			
7	795	894	937	972	1,001	1,112	1,154	1,210	1,263	1,314	1,280	1,371	1,363	1,481	1,526	1,566	1,538			
8	827	827	922	963	971	1,045	1,132	1,184	1,240	1,293	1,344	1,310	1,401	1,393	1,511	1,556	1,596			
9	791	911	906	956	1,059	1,063	1,170	1,236	1,288	1,344	1,398	1,448	1,415	1,505	1,497	1,615	1,660			
10	807	741	812	833	832	934	946	1,065	1,131	1,183	1,239	1,293	1,343	1,310	1,400	1,392	1,510			
11	756	789	734	823	815	857	957	966	1,085	1,151	1,203	1,259	1,312	1,363	1,329	1,420	1,412			
12	579	693	722	718	782	730	825	913	921	1,040	1,107	1,159	1,214	1,268	1,318	1,285	1,375			
K-4	4,854	5,252	5,554	5,690	5,865	6,071	6,280	6,492	6,777	6,945	7,182	7,309	7,437	7,527	7,637	7,681	7,714			
5-6	1,709	1,852	1,958	2,096	2,195	2,305	2,414	2,518	2,535	2,592	2,675	2,785	2,948	3,032	3,045	3,080	3,150			
7-8	1,622	1,721	1,859	1,935	1,972	2,157	2,286	2,394	2,503	2,607	2,624	2,681	2,764	2,874	3,037	3,121	3,134			
9-12	2,933	3,134	3,174	3,330	3,488	3,584	3,898	4,180	4,426	4,719	4,946	5,158	5,284	5,445	5,545	5,712	5,958			
Total	11,118	11,959	12,545	13,051	13,520	14,117	14,878	15,583	16,241	16,862	17,427	17,933	18,433	18,879	19,264	19,594	19,955			

Table 15. Most Likely Enrollment Projection

	Actual							Projected										
	Grade	06-07	07-08	08-09	09-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23
K	K	1,070	1,125	1,170	1,135	1,201	1,186	1,315	1,376	1,416	1,388	1,452	1,459	1,505	1,507	1,500	1,496	1,492
1	1	1,018	1,086	1,137	1,178	1,164	1,235	1,234	1,357	1,418	1,459	1,431	1,494	1,501	1,547	1,550	1,542	1,538
2	2	940	1,071	1,106	1,157	1,192	1,202	1,274	1,273	1,396	1,457	1,497	1,469	1,533	1,540	1,586	1,588	1,581
3	3	926	1,001	1,094	1,114	1,174	1,231	1,198	1,290	1,288	1,412	1,472	1,513	1,485	1,548	1,556	1,601	1,604
4	4	900	969	1,047	1,106	1,134	1,217	1,259	1,232	1,324	1,322	1,446	1,506	1,547	1,519	1,582	1,590	1,635
5	5	865	955	998	1,087	1,113	1,162	1,222	1,273	1,246	1,338	1,336	1,460	1,521	1,561	1,533	1,596	1,604
6	6	844	897	960	1,009	1,082	1,143	1,192	1,252	1,303	1,276	1,368	1,366	1,490	1,551	1,591	1,563	1,626
7	7	795	894	937	972	1,001	1,112	1,154	1,211	1,271	1,322	1,295	1,386	1,385	1,508	1,569	1,610	1,581
8	8	827	827	922	963	971	1,045	1,132	1,184	1,240	1,300	1,351	1,324	1,416	1,415	1,538	1,599	1,639
9	9	791	911	906	956	1,059	1,063	1,170	1,252	1,304	1,360	1,420	1,472	1,445	1,536	1,535	1,658	1,719
10	10	807	741	812	833	832	934	946	1,075	1,157	1,209	1,265	1,325	1,377	1,350	1,441	1,440	1,563
11	11	756	789	734	823	815	857	957	970	1,099	1,181	1,233	1,289	1,349	1,400	1,373	1,465	1,464
12	12	579	693	722	718	782	730	825	912	925	1,054	1,136	1,187	1,244	1,304	1,355	1,328	1,420
K-4	K-4	4,854	5,252	5,554	5,690	5,865	6,071	6,280	6,527	6,842	7,037	7,298	7,442	7,571	7,662	7,773	7,818	7,851
5-6	5-6	1,709	1,852	1,958	2,096	2,195	2,305	2,414	2,525	2,549	2,614	2,704	2,826	3,010	3,112	3,124	3,159	3,230
7-8	7-8	1,622	1,721	1,859	1,935	1,972	2,157	2,286	2,394	2,511	2,622	2,646	2,711	2,801	2,923	3,107	3,208	3,221
9-12	9-12	2,933	3,134	3,174	3,330	3,488	3,584	3,898	4,209	4,485	4,804	5,054	5,274	5,415	5,590	5,705	5,891	6,166
Total	Total	11,118	11,959	12,545	13,051	13,520	14,117	14,878	15,656	16,387	17,077	17,702	18,252	18,796	19,286	19,709	20,076	20,467

Table 16. High Enrollment Projection

Grade	Actual										Projected									
	06-07	07-08	08-09	09-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23			
K	1,070	1,125	1,170	1,135	1,201	1,186	1,315	1,392	1,433	1,404	1,469	1,476	1,523	1,525	1,518	1,514	1,510			
1	1,018	1,086	1,137	1,178	1,164	1,235	1,234	1,366	1,443	1,484	1,456	1,520	1,528	1,574	1,576	1,569	1,565			
2	940	1,071	1,106	1,157	1,192	1,202	1,274	1,277	1,410	1,487	1,528	1,499	1,563	1,571	1,617	1,620	1,612			
3	926	1,001	1,094	1,114	1,174	1,231	1,198	1,297	1,300	1,433	1,510	1,551	1,522	1,586	1,594	1,640	1,643			
4	900	969	1,047	1,106	1,134	1,217	1,259	1,239	1,338	1,341	1,473	1,550	1,591	1,563	1,627	1,634	1,681			
5	865	955	998	1,087	1,113	1,162	1,222	1,284	1,263	1,362	1,366	1,498	1,575	1,616	1,587	1,652	1,659			
6	844	897	960	1,009	1,082	1,143	1,192	1,253	1,315	1,294	1,393	1,397	1,529	1,606	1,647	1,618	1,683			
7	795	894	937	972	1,001	1,112	1,154	1,224	1,285	1,347	1,326	1,425	1,428	1,561	1,638	1,679	1,650			
8	827	827	922	963	971	1,045	1,132	1,186	1,256	1,317	1,379	1,358	1,457	1,460	1,593	1,670	1,711			
9	791	911	906	956	1,059	1,063	1,170	1,257	1,311	1,381	1,442	1,504	1,483	1,582	1,585	1,718	1,795			
10	807	741	812	833	832	934	946	1,084	1,171	1,225	1,295	1,356	1,417	1,397	1,496	1,499	1,632			
11	756	789	734	823	815	857	957	970	1,108	1,195	1,249	1,319	1,380	1,442	1,421	1,520	1,523			
12	579	693	722	718	782	730	825	918	931	1,069	1,156	1,210	1,280	1,341	1,403	1,382	1,481			
K-4	4,854	5,252	5,554	5,690	5,865	6,071	6,280	6,571	6,924	7,149	7,435	7,596	7,727	7,819	7,932	7,977	8,010			
5-6	1,709	1,852	1,958	2,096	2,195	2,305	2,414	2,537	2,578	2,656	2,759	2,894	3,104	3,222	3,234	3,270	3,342			
7-8	1,622	1,721	1,859	1,935	1,972	2,157	2,286	2,410	2,541	2,663	2,705	2,783	2,885	3,021	3,230	3,348	3,361			
9-12	2,933	3,134	3,174	3,330	3,488	3,584	3,898	4,229	4,521	4,870	5,142	5,388	5,560	5,761	5,905	6,119	6,431			
Total	11,118	11,959	12,545	13,051	13,520	14,117	14,878	15,747	16,563	17,338	18,040	18,662	19,276	19,823	20,301	20,714	21,143			



Table 17 provides enrollment projections by school based on the Most Likely projection. Shaded orange cells indicate years in which enrollment would exceed adjusted capacity.

JSA prepared these individual school enrollment projections utilizing the standard cohort survival methodology, historical migration rates, and birth to kindergarten ratios. The individual school enrollment projections are based on the assumption that the rate of progression from one grade to the next will be consistent with the rates of progression in previous years. However, these forecasts do not take into consideration local district factors such as changing school programs, the requirements of teacher to student ratios by grade level, the availability of classrooms, and the movement of students required to maintain the teacher/student ratio at all grade levels. These district policies have significant effect on the individual school enrollments as students may be shifted out of their attendance area due to the lack of available classrooms, or other programmatic issues. Thus, these projections are *not* meant for staffing or budgeting purposes, but for long-term facility planning District-wide.

**Table 17. Enrollment Projections by School**

Elementary Schools	Actual 12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23
Apple Glen	590	614	643	662	686	700	712	721	731	736	739
Centerton Gamble	602	625	656	674	700	714	727	735	747	751	754
Central Park	725	756	791	814	843	860	874	886	897	903	906
Cooper	654	679	712	731	760	775	788	797	809	814	818
Elm Tree	632	657	688	709	735	750	763	772	784	789	792
Mary Jones	648	675	707	728	753	767	781	791	801	806	808
R.E.Baker	605	629	659	679	704	718	730	739	750	754	757
Sugar Creek	587	607	638	655	682	697	709	716	728	732	737
Thomas Jefferson	545	568	595	610	631	643	655	663	672	675	677
Willowbrook	692	719	754	776	804	817	832	842	854	859	861
<b>Total</b>	<b>6,280</b>	<b>6,527</b>	<b>6,842</b>	<b>7,037</b>	<b>7,298</b>	<b>7,442</b>	<b>7,571</b>	<b>7,662</b>	<b>7,773</b>	<b>7,818</b>	<b>7,851</b>
Middle Schools	Actual 12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23
Ardis Ann	621	650	655	673	695	727	774	800	803	813	831
Brightfield	575	601	606	623	643	674	717	741	743	752	769
Old High	640	670	677	693	718	749	798	825	829	838	857
Ruth Barker	578	605	611	626	648	676	721	745	748	756	774
<b>Total</b>	<b>2,414</b>	<b>2,525</b>	<b>2,549</b>	<b>2,614</b>	<b>2,704</b>	<b>2,826</b>	<b>3,010</b>	<b>3,112</b>	<b>3,124</b>	<b>3,159</b>	<b>3,230</b>
Junior Highs	Actual 12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23
J. William Fulbright	N/A	766	803	839	847	867	896	935	994	1,027	1,031
Lincoln	1,152	895	939	980	990	1,013	1,048	1,093	1,162	1,200	1,205
Washington	1,134	733	768	802	809	830	857	895	951	982	985
<b>Total</b>	<b>2,286</b>	<b>2,394</b>	<b>2,511</b>	<b>2,622</b>	<b>2,646</b>	<b>2,711</b>	<b>2,801</b>	<b>2,923</b>	<b>3,107</b>	<b>3,208</b>	<b>3,221</b>
High Schools	Actual 12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23
Bentonville HS	3,898	4,209	4,485	4,804	5,054	5,274	5,415	5,590	5,705	5,891	6,166
<b>Total District-wide</b>	<b>14,878</b>	<b>15,656</b>	<b>16,387</b>	<b>17,077</b>	<b>17,702</b>	<b>18,252</b>	<b>18,796</b>	<b>19,286</b>	<b>19,709</b>	<b>20,076</b>	<b>20,467</b>

*Based on the Most Likely projection.*

*Projections for Junior High Schools are based on historical and projected residents and migration patterns and should be updated when actual enrollments become available.*

*Totals may not match exactly due to formula rounding.*

## SECTION H: RESIDENT PROJECTIONS

The following projections are based upon **residence** of the students. The methodology is parallel to that utilized in the preparation of the enrollment projections in Section G, however the historical years of student data utilized differ in that we use the location of where students reside, as opposed to enrollments by school. These projections are meant to assist the District in making critical decisions from a spatial perspective, such as where future school facilities should be located, potential boundary changes, or school consolidation. Since students don't necessarily attend their school of residence, these projections should not be utilized for staffing and budgeting purposes.

Table 18 provides the number of students projected to be residing in each school boundary through the 2022-23 school year. Willowbrook will experience the highest gains in student residents through the projection period (+62% K-12<sup>th</sup> grade students) while Sugar Creek will experience the lowest gains in student residents (+3.9% K-12<sup>th</sup> grade students).

Table 19 provides the current student residents, current enrollment, and current and total capacities.

**Table 18. Student Resident Projections by School Boundary**

<b>K-4 Projections</b>	<b>13-14</b>	<b>14-15</b>	<b>15-16</b>	<b>16-17</b>	<b>17-18</b>	<b>18-19</b>	<b>19-20</b>	<b>20-21</b>	<b>21-22</b>	<b>22-23</b>	<b>% Change</b>
Apple Glen	676	683	676	697	712	725	734	746	750	753	11.4%
Centerton Gamble	779	798	808	833	850	866	877	890	895	899	15.4%
Central Park	859	924	960	979	998	1,015	1,027	1,042	1,047	1,052	22.5%
Cooper	814	860	897	943	961	977	988	1,002	1,008	1,012	24.3%
Mary Jones	775	819	855	883	900	916	927	941	946	950	22.7%
Sugar Creek	911	913	925	938	957	973	984	999	1,004	1,009	10.7%
Thomas Jefferson	714	776	811	862	878	893	904	917	922	925	29.5%
Willowbrook	934	1,003	1,052	1,118	1,140	1,159	1,173	1,190	1,197	1,202	28.7%
<b>5-6 Projections</b>	<b>13-14</b>	<b>14-15</b>	<b>15-16</b>	<b>16-17</b>	<b>17-18</b>	<b>18-19</b>	<b>19-20</b>	<b>20-21</b>	<b>21-22</b>	<b>22-23</b>	<b>% Change</b>
Apple Glen	256	270	277	266	252	266	276	277	281	288	12.5%
Centerton Gamble	331	322	305	303	304	319	332	333	337	346	4.5%
Central Park	330	304	318	368	395	404	418	419	424	433	31.3%
Cooper	298	308	322	325	353	390	403	404	408	417	40.1%
Mary Jones	253	261	276	297	324	343	355	356	361	369	46.0%
Sugar Creek	415	427	399	392	395	399	412	413	418	427	2.9%
Thomas Jefferson	294	302	308	322	349	391	403	404	409	417	41.6%
Willowbrook	318	332	373	382	419	474	489	491	497	507	59.3%
<b>7-8 Projections</b>	<b>13-14</b>	<b>14-15</b>	<b>15-16</b>	<b>16-17</b>	<b>17-18</b>	<b>18-19</b>	<b>19-20</b>	<b>20-21</b>	<b>21-22</b>	<b>22-23</b>	<b>% Change</b>
Apple Glen	300	277	260	275	282	271	257	270	280	282	-6.0%
Centerton Gamble	291	311	345	335	318	316	317	333	345	347	19.2%
Central Park	302	330	333	307	321	371	398	407	420	422	39.8%
Cooper	285	301	308	318	332	335	363	400	413	414	45.6%
Mary Jones	253	266	279	287	302	323	350	369	381	382	51.0%
Sugar Creek	392	384	403	415	388	381	384	387	400	402	2.5%
Thomas Jefferson	263	283	316	324	330	344	370	413	425	426	62.2%
Willowbrook	285	324	340	354	395	404	441	496	511	513	79.9%
<b>9-12 Projections</b>	<b>13-14</b>	<b>14-15</b>	<b>15-16</b>	<b>16-17</b>	<b>17-18</b>	<b>18-19</b>	<b>19-20</b>	<b>20-21</b>	<b>21-22</b>	<b>22-23</b>	<b>% Change</b>
Apple Glen	524	557	588	581	582	574	564	567	560	563	7.4%
Centerton Gamble	451	494	536	588	624	635	652	640	624	638	41.6%
Central Park	519	556	611	659	685	687	703	728	769	828	59.5%
Cooper	455	485	517	544	576	603	623	637	678	719	57.9%
Mary Jones	400	425	462	495	532	553	581	609	651	691	72.6%
Sugar Creek	819	821	836	809	825	830	821	826	801	798	-2.6%
Thomas Jefferson	504	553	581	620	650	678	717	739	772	828	64.4%
Willowbrook	450	517	597	673	724	776	834	856	935	998	121.6%

**Table 19. Current Residents and Enrollments Compared to Ideal, Adjusted, and Total Capacity**

	<b>2012-13 Residents</b>	<b>2012-13 Enrollment</b>	<b>Ideal Capacity</b>	<b>Adjusted Capacity</b>	<b>Total Capacity</b>
<b>Elementary Schools</b>					
Apple Glen	677	590	551	648	934
Centerton Gamble	788	602	599	705	942
Central Park	810	725	753	886	1,173
Cooper	765	654	693	815	1,064
Mary Mae Jones	725	648	552	649	836
Sugar Creek	928	587	563	662	936
Thomas Jefferson	675	545	499	587	861
Willowbrook	846	692	718	845	1,032
<b>Non-Traditional Elementary Schools</b>					
Elm Tree	<i>Included Above</i>	632	520	612	861
R.E. Baker	<i>Included Above</i>	605	541	637	861
<b>Middle Schools</b>					
Ardis Ann	621	621	690	812	1,148
Bright Field	553	575	524	616	896
Old High	629	640	643	756	1,176
Ruth Barker	583	578	643	756	1,092
<b>Junior High Schools</b>					
J. William Fulbright	635	N/A	940	1,044	1,380
Lincoln	824	1,152	1,091	1,212	1,890
Washington	792	1,134	842	936	1,620
<b>High School</b>					
Bentonville High School	3,881	3,898	3,737	4,152	5,040



## SECTION I: FACILITY ANALYSIS

In order to determine the future facility needs of the Bentonville Public School District, it is necessary to identify the ability of the District's existing facilities to adequately serve enrollments. This section identifies the adequacy of the Bentonville Public School District's existing facilities. The District commissioned a Facility Capacity Study which was presented to the District in January, 2013.

### **Facility Capacity**

Capacity can be defined as “the number of students who can be housed in any particular building without compromising the instruction program”<sup>13</sup>. Programs, not square footage, drive capacity. Defining capacity is important in order for the district to have accurate numbers for planning, communicating to the community the need for a building program (additional schools or classrooms), planning for possible closures, boundary studies, bus routes, decision making around new/additional program, services, grants, building adaptations, or remodeling, and facility master plans required by the State. The study identified three types of capacity for the BPSD analysis.

- Total Capacity
  - Using every teaching station during every period of a traditional day and following state guidelines for student enrollment in a grade level. This does not take into consideration needed space for special education, special program, schedules of buildings, therapy, testing, counseling, etc. These functions would have to be conducted in small areas throughout the building, hallways, lobbies, or portables.
- Adjusted Capacity
  - This capacity analysis assumes the room set asides are necessary to provide an adequate instructional program, the adjusted capacity would determine the number of students that could be assigned to the building without compromising the instructional program.
- Ideal Capacity
  - This number takes the adjusted capacity and uses a percentage for a given level that has historically been shown to be a good measure in allowing for differences in scheduling, student movement, teacher assignment, and all creative programming to meet the needs of all students. In this report, 85% at elementary and middle levels and 90% at junior and senior high school levels is used.

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<sup>13</sup> JDK Capacity Report.

The consultant analyzed each school site within the District and prepared detailed capacity charts for all schools. Table 20 provides an overview of current enrollments as compared to the three capacity categories.

**Table 20. Capacity Compared to Current Enrollments**

Grade Group	2012-13 Enrollments	Ideal Capacity	Adjusted Capacity	Total Capacity
K-4	6,280	5,989	7,046	9,500
5-6	2,414	2,499	2,940	4,312
7-8	2,286	2,873	3,192	4,890
9-12	3,898	3,737	4,152	5,040

Recommendations from the Capacity Study:

- The BPSD should review and update the capacity guidelines and charts in addition to a review of guidelines, definitions, and assumptions every three years.
- Programs that could impact the capacity because of need for computer labs, storage, and space should go through an approval process before being adopted.
- Any alterations to a building should go through an approval process so that changes in the capacity can be tracked over time.
- Because of the complexity of the high school campus and the size of buildings, the District may want to explore additional training or alternative programs for scheduling this size and complex of a high school.<sup>14</sup>

<sup>14</sup> Bentonville Public Schools. BOE Presentation. January 2013.

**Enrollment Projections Compared to Facility Capacity**

Figures 48-51 provide a comparison of the 10-year Most Likely enrollment projections to the Ideal, Adjusted, and Total capacities at each grade level grouping.

- The K-4<sup>th</sup> grade enrollment projections exceed the ideal capacity and will exceed the adjusted capacity in 2016-17 and remain over adjusted capacity through the projection period.
- The 5<sup>th</sup>-6<sup>th</sup> grade enrollment projections exceed the ideal capacity and will exceed the adjusted capacity in 2018-19 and remain over adjusted capacity through the projection period.
- The 7<sup>th</sup>-8<sup>th</sup> grade enrollment projections exceed the ideal capacity and will exceed the adjusted capacity in 2021-22 and remain over adjusted capacity through the projection period.
- The 9<sup>th</sup>-12<sup>th</sup> grade enrollment projections exceed the ideal capacity and will exceed the adjusted capacity in 2013-14 and remain over adjusted capacity through the projection period.

**Figure 48. Elementary School Enrollment Projections Compared to Facility Capacities**

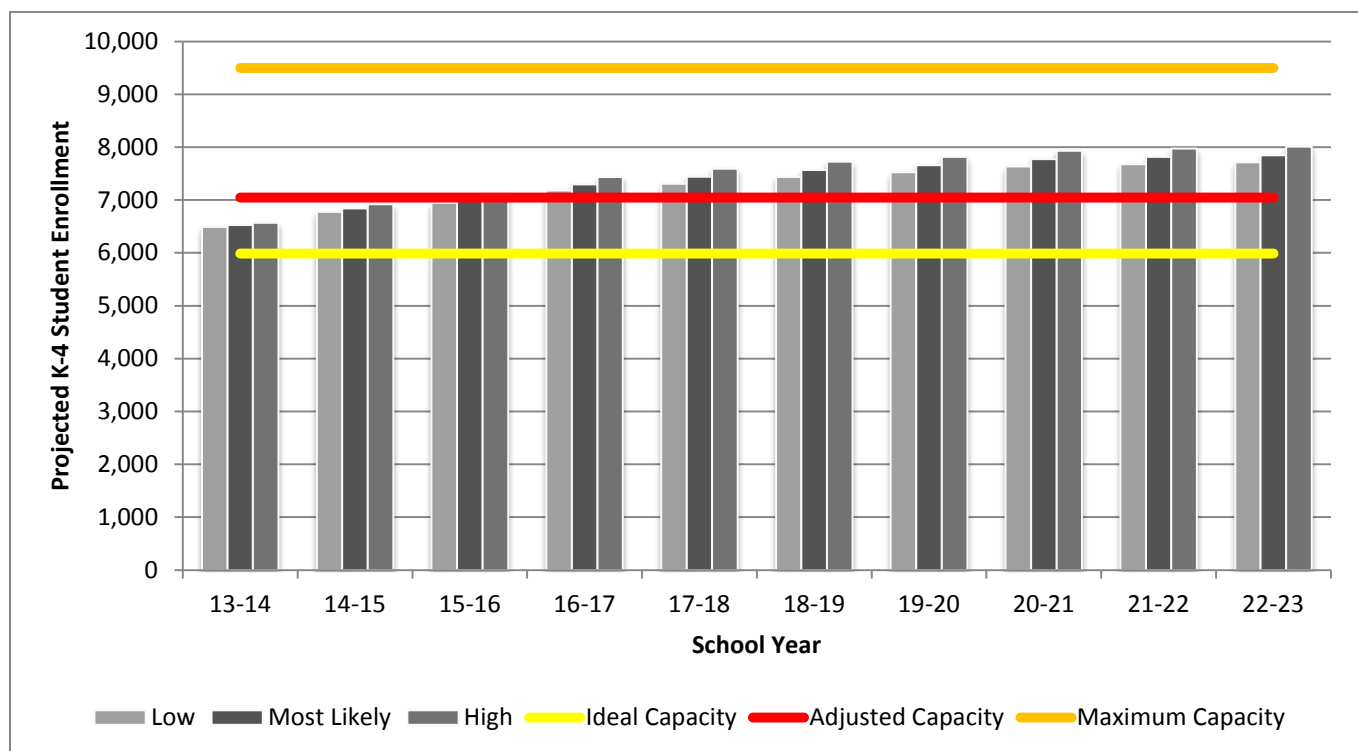


Figure 49. Middle School Enrollment Projections Compared to Facility Capacities

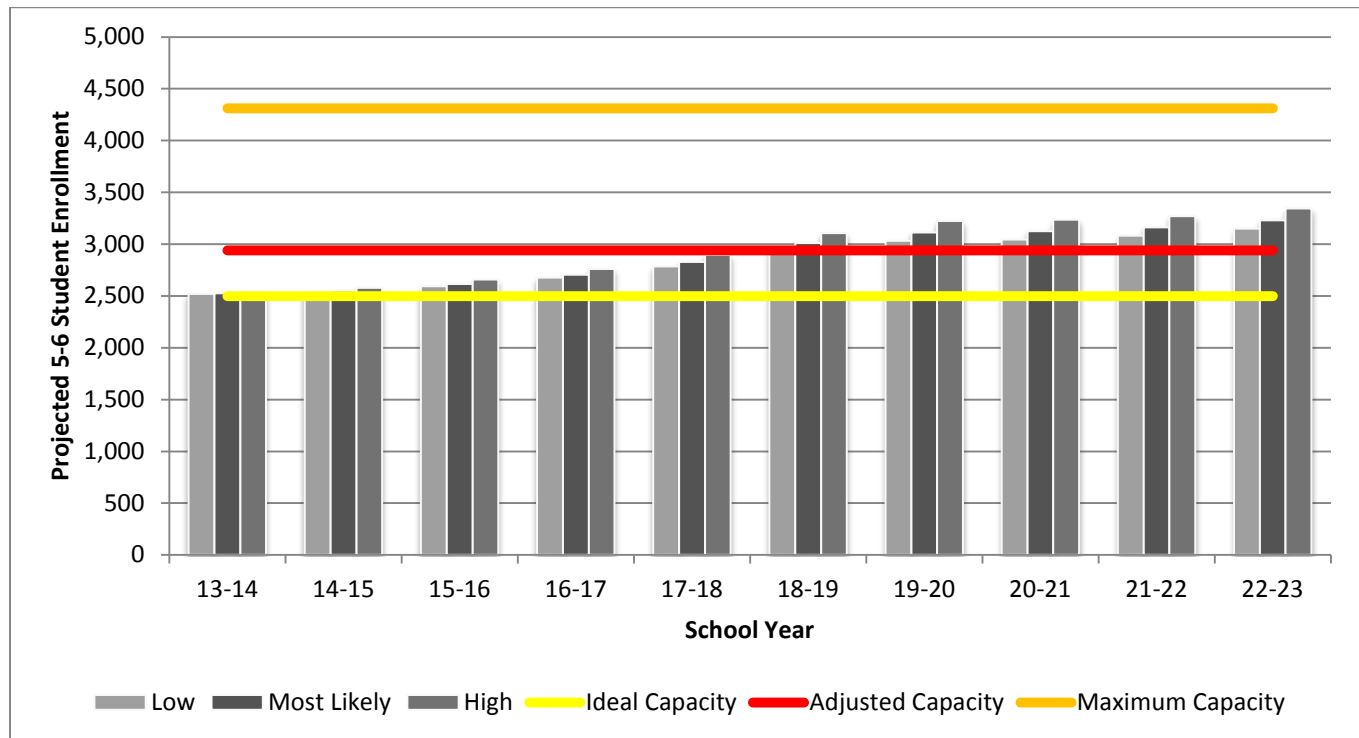
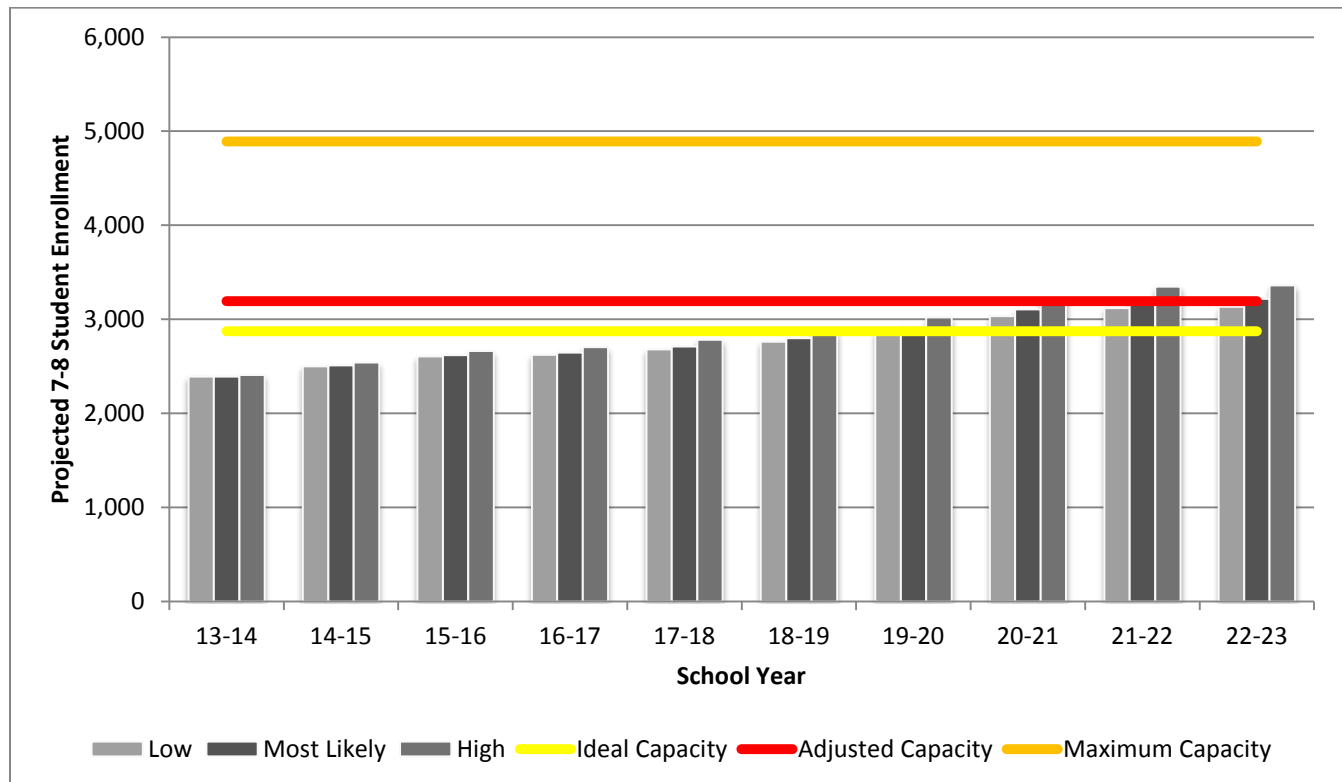
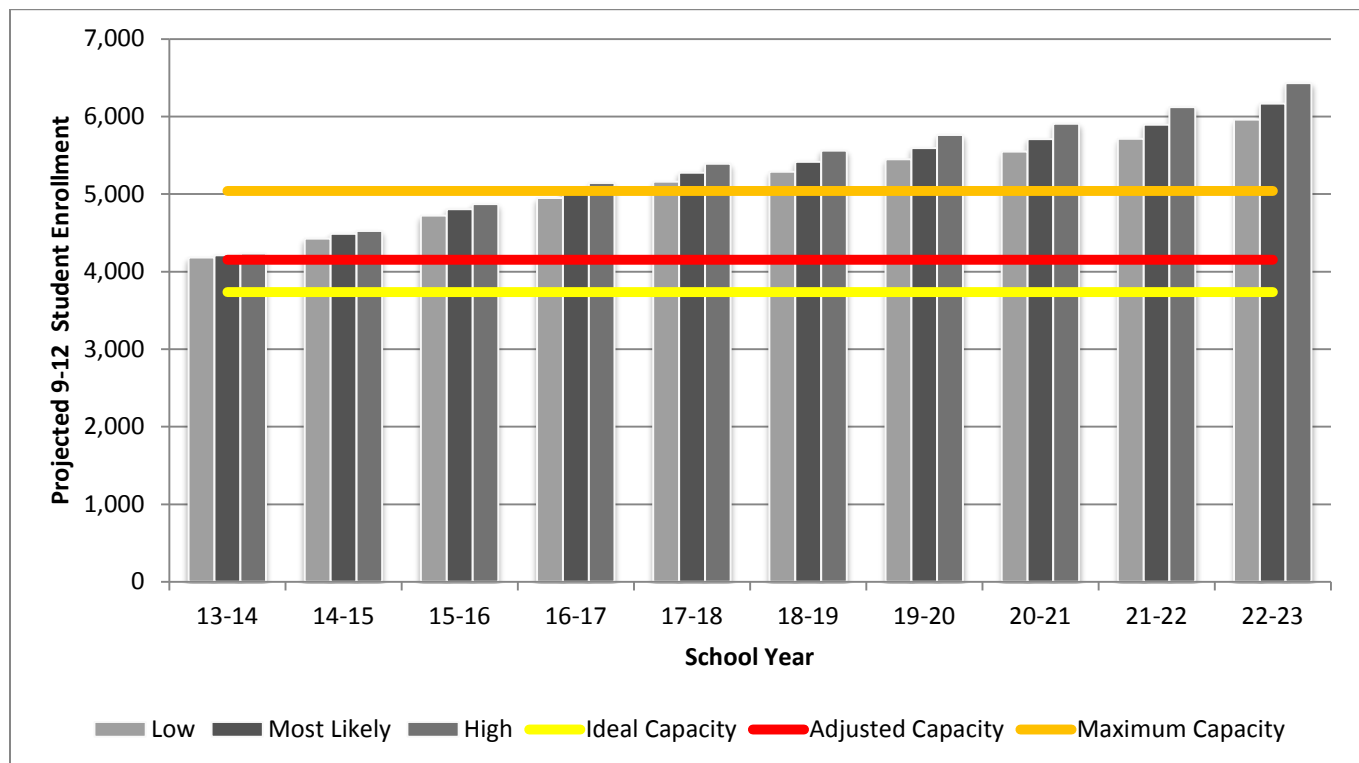


Figure 50. Junior High School Enrollment Projections Compared to Facility Capacities



**Figure 51. High School Enrollment Projections Compared to Facility Capacities**



## SECTION J: RECOMMENDATIONS

The Bentonville Public School District has undertaken this Demographic Analysis in order to assist in proactive planning for current and future facility needs for its student population. Based on the analyses prepared for this study, the following steps are recommended for the Bentonville Public School District to meet its future facility needs:

### **Recommendations**

- Current 9<sup>th</sup>-12<sup>th</sup> grade enrollments fall above the ideal capacity. By the 2014-15 school year, they will exceed the adjusted capacity by 2,014 seats. By 2016-17, 9<sup>th</sup>-12<sup>th</sup> grade enrollments will exceed total facility capacity. It is imperative the District explore options for housing 9<sup>th</sup>-12<sup>th</sup> grade students through the projection period, as the construction and modernization of school facilities cannot be accomplished in a short time period.
- Not only does the District need an immediate high school solution for housing students, but during the 10-year projection period the District will need to construct at least one elementary school (+805 over adjusted elementary capacity by 2022-23), and acquire a site for a new middle school (+290 over adjusted middle school capacity by 2022-23).
- While junior high school enrollments will reach adjusted capacity by 2022-23, indicating no need for a new junior high school through the projection period, we recommend the District continue to monitor enrollments annually.
- The District should aggressively pursue adequate school funding from Federal, State, and Local sources in order to upgrade current facilities and construct new facilities as needed.
- Replace portable buildings on all campuses with permanent structures when fiscally possible.
- Maintain relationships with all cities served by the District and Benton County in order to continue to plan for the most effective use of its facilities in addition to the potential for new facilities.
- Maintain ongoing relationships with businesses in order to effectively track economic growth.
- Consider exploring joint use projects with community groups and organizations, city governmental agencies, and other resources in order to accommodate and improve these programs which meet the needs of a diverse student population.

- Utilize this study as the foundation for the development of a Long Range Master Plan, incorporating the findings of this study, facility standards, educational specifications, and attendance boundary changes.
- Review and update this study annually to determine if projected development and enrollment trends are accurate. Should future trends deviate from those identified in the study, adjustments regarding future school facility needs and costs may be required.

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